PUBLISHED IN LONDON AND FRANKFURT

Monday February 19 1979



CONTINENTAL SELLING PRICES: AUSTRIA Sch 15; BELGIUM Fr 25; DENMARK Kr 3.5; FRANCE Fr 3.5; GERMANY - DM 2.0; ITALY L 600; NETHERLANDS FI 2.0; NORWAY Kr 3.5; PORTUGAL Esc 25; SPAIN PL2 50; SWEDEN Kr 3.25; SWITZERLAND Fr 2.0; EIRE 15p

# order emerge in Iran

The first signs have emerged that Ayatoliah Khomeini, Iran's religious and political leader, is regaining control. Most of the country's workers bave answered his call to return to work after several months of

But hopes are bleak of oil production returning to its pre-vious level of 6m barrels per day. Khomeini has told oil workers to produce only enough oil for domestic needs About 470 Britons were evacuated by the RAF to Cyprus over the weekend. Evacuation of the remaining 5,000 Americans also began under the protection of armed men provided by Khomeini. Back Page

### Howell pledges snow cash aid

Snow Minister Deals Howell said the Government would pay 75 per cent of any spending above the product of a penny rate to help councils cope with the cost of the emergency.

His promise came yesterday as the AA reported that dozens of main routes in the North, Midlands and East Anglia were still blocked. The west of England, however, appeared to have recovered from the had weather. Forecast, Back Page

### Egypt hard line

Enypt says it will make no more concessions to Israel in the processions to Israel in the calks to end in agreement the talks to end in agreement the talks to end in agreement permitting the signing of the Israel I permitting the signing of the proposed peace treaty. Back

### Shopfloor plan

TUC General Secretary Len Murray held out the prospect of union conferences to involve the shop floor more closely in national discussions on pay and inflation. Back Page

### Metro stabbing

A 19-year-old Welsh rugby fan., in France for the Wales-France international rugby match, was stabbed to death by teenagers in a Paris underground station.

### Fighter fund Saudi Arabia has agreed to pay

**Bhutto fate** 🚎 🎇 President Zia-Ul-Haq, Pakistan's military ruler, said in a U.S. television interview that he would not decide for himself

## Zulfikar Ah Bhutte, but would let the military and civilian leadership rule on any appeal.

Robbery arrests A West German Luthansa employee and another man were arrested in New York in connection with a \$5.35m robbery from the airling's cargo terminal at

on the fate of former Premier

### Kennedy International Airport. Briefly . . .

Former UK Conservative MP Humphry Berkeley plans to continue working for the Transkei Government in spite of the attack on him by members of the security police. The bodies of a woman and haby were found beside the River Stour at Dedham, Suffolk, More than 140 firemen braved collapsing walls and floors to fight a blaze which gutted Auto-Products' five-storey factory in Bolton.

Winner of the weekly £75,000 Premium Bend prize is the West Midlands owner of Bond No. 15WK 008653. The £50,000 prize goes to the Nottingham prize goes to the Nottingham 6.25 per cent of Guthrie owner of Bond No. 13VS 346631. ordinary shares. Page 28

# Go-ahead for civil servants' pay rise

implement pay increases averaging 26-36 per cent due to white-ocliar civil servants from the findings of an independent comparability study. Full implementation is expected to take the form of a staged deal. Ministers have agreed with union claims that the study's findings should form the basis of pay talks for 600,000 civil servants in this round. Back Page

• FOUR-YEAR struggle to find a common EEC position on the developing world's aspirations in liner shipping could be resolved tomorrow, after a new initiative by the Brusels Com-mission. Back Page

• SUBSTANTIAL support for a wage freeze to avoid a return to a high level of inflation is shown in the latest Financial Times survey of consumer confidence published today. Page 7

9 U.S. textile companies and unions have agreed to put their weight behind the trade package negotiated by the Carter Administration in the Geneva multilateral talks. Page 3

BRITISH Gas Corporation has placed a £45m order with BSC tube division for the largestdiameter long distance pipeline to be laid in Britain. Back Page

PAY OFFER similar to that which may be decided for local authority manual workers within the next few days is seen by

Investment by the industry is. expected to have risen substan-

• BIG INFLOWS boosted net National Savings receipts to ftfil.7m in the four weeks to February 2. Page 4

• YUKI, the London-based Japanese fashion designer, is joining with Rivington Reed. the Lancashire textile group, in a link-up which could have a decided impact on UK fashion fabrics. The move goes beyond the conventional licensing agree-

• ONE of the main burdles facing the CBI in its attempt to take over London's Centre 8525m so Egypt can have 50 Point office block as its head-U.S. F-5 fighters which it was quarters has been cleared. Camden planning committee has begin receiving last approved an application to convert the block's showrooms into a council chamber.

### **GOMPARIES**

● LEGAL tangles surrounding ownership of Hemerdon Mining and Smelting (HMS), which is working on what could be the biggest UK metal mining project this century, could be settled in hie Bermuda Supreme Court next month. Page 5

• ELECTROBAS, the Brazilian State electricity concern, is raising a \$400m medium-term loan with conditions that repre-scut a further improvement in the terms of Brazilian state risk in the Euromarkets. The loan, in two pars, carries the Brazilian Republic's guarantee. Page 18

• ENGLISH Property Corporation repeated its opposition to bid by Dutch group Wereldhave on the basis that the bid price of 46p a share represents only 57 per cent of the company's net asset value.

SIME DARBY, the Far East-based international conclomerate which has made a £122m bid for Guthrie Corporation, said it had received acceptances in respect of only

Arts page ...... 13

Leader page ...... 14

# Chinese halt push into Vietnam after Russian warning

BY RICHARD NATIONS IN BANGKOK

China has stopped short of pushing deeper into Vietnam on the second day of her border crossing, and there are signs that some elements of the threepronged invasion force may already be pulling back, military analysts here

These developments come as the Soviet Union issued a stern warming to Peking that it would honour its commitments under the Friendship Treaty with Vietnam, and Washington called on China to withdraw her

troops.

A flurry of diplomatic activity took place in centres as far apart as the United Nations in New York and Bangkok, to contain the conflict, which has profoundly worried leaders in South-East 'Asia. Herr Kurt Waldheim the UN Secretary-General, called for a ceasefire last night. last night.

The People's Daily, the Chinese Communist newspaper. suggested yesterday that objectives in Vietnam would be limited, and that Chinese forces would be withdrawn to their normal positions along the frontier with Vietnam as soon as their mission had been

accomplished. Intelligence from the battle-front is still very sketchy, and some analysts do not rule out the possibility that Chinese units may be probing deeper into the interior.

Faced with an overwhelmingly region. superior force, Hanoi appears so far to have avoided throwing its few remaining regular Army

the Chinese invasion, leaving its Chinese prestige as a protector lightly-armed border guards and sank local militia to take the brunt. The

of the fighting.
Radio Hanoi claimed that its Army and local militia had destroyed 46 Chinese tanks and killed hundreds of Chinese soldiers fighting in Chau Bang and Lang Xon Provinces. No-one here was able to confirm

The U.S. has warned China, Vietnam and the Soviet Union not to permit the Chinese-Vietnam border conflict to widen into a regional war. The U.S. would like to the dispute resolved in the UN and not on the battlefield. Page 2

China's gamble in Vletnam, Page 14.

the details, but it was said that there were two main areas where the Chinese struck. Peking's military thrust fol-lows its oft-repeated promise to "punish" Vietnam, and crowns a year of bitter quarrelling that grew in pace with Vietnam's in-vasion of neighbouring Cambodia, China's only ally in the

Hanoi's armoured columns seized the Cambodian capital of Phnom Penh early divisions in the north against last month with impunity, from Vietnam,

The act of defiance by a minor neighbouring state was not only intolerable, but Peking's chronic suspicions of Vietnam's role in the Soviet scheme of encircle-ment were also aggravated.

A high-powered Vietnamese delegation led by Prime Minis-ter Pham Van Dong remained in Phnom Penh on the third day of his official visit, according to the official Cambuchean Radio. David Satter reports from Moscow:

Russia announced yesterday that she would "honour" her Friendship Treaty with Viet-nam, and warned China to stop "aggression" against Vietnam "before it was too late."

The treaty, signed in November, commits the Soviet Union and Victnam to consult in the event of a threat against either country, with a view to removing that threat.

Vietnam has formally appealed to Russia for help in defending herself against the Chinese.

Government statement carried by Tass, the Soviet news agency, said Russia demanded "an end to the aggression" and immediate withdrawal of Chinese troops

# Scottish opinion poll puts Tories level with Labour

BY RICHARD EVANS, LOBBY EDITOR

running neck and neck with Labour in Scotland and well ahead of the Scottish National Party, according to an opinion poll published today. The implications of the poll,

conducted by Opinion Research Centre for the Scotsman, could be considerable for the Government, not only in the General Election but in the devolution referendum on March 1. In previous surveys Labour has always maintained a clear lead. Ministers fear that the

impressive increase in support for the Conservatives could mean that the Tories, as the major anti-devolution group, had 36.3 per cent. SNP 30. could play a more decisive cent. Tories 24.7 per cent wrecking role in the referenthe Liberals 8.3 per cent. dum than had been expected. And a No vote, or a clear failure to reach the required Yes target of 40 per cent of the electorate, would cast grave doubts on the Government's them in 1974 and there is now ability to survive at West- every prospect of the Tories minster beyong the spring.

as he would probably like to do, soften the memories of the reached with the TUC and recent industrial unrest, is to retain the support of the Nationalist parties. But there

referendum results. have the support of 38 per cent devolution proposals.

of the electorate, followed by the SNP with 19 and the Liberals with 5. In the October 1974 General Election Labour had 36.3 per cent. SNP 30.4 per cent, Tories 24.7 per cent and The continuing slide in the SNP vote means that the Conservatives can expect to recapture four or five of the eight seats the Nationalists won from

capturing some Labour seats as Mr. Callaghan's main hope of well. It is essential for Labour

nower to the extreme to maintain a tight orin Scotland because of the electoral advantage the Conservainvariably have

In referendum terms, the significant pointer in the latest poll is that the number of would be little reason to expect. Tories who want no constitu-this if the prospect of Assem-blies were to be dashed by the per cent in 1975 to 50 per cent The ORC survey shows that because of the leadership declboth Labour and Conservatives sion to oppose the Government's

The survey was conducted before last week's speech by Lord Home in which he disclosed his intention to vote No This might well influence more Tory voters. If, as expected, the referendum is close, a shift in Conservative opinion could swing it decisively against a Yes

If, as seems certain, the Conservatives retain the two safe of Knutsford and seats Continued on Back Page The devolution debate in Wales, Page 27

# Abandoned pit may re-open

APPROVAL for investment of expected shortly.

National Coal Board's Doncaster area, was closed in the mid 1950s because of shaft, tunnelling and water difficulties. It is estimated that there are some 140m tonnes of workable reserves in the pit, and that it could quite rapidly be brought to an annual production of 2m tonnes of power-station coal. An area NCB team has been working on development plans for the pit over the past year.

and is convinced that it will

be highly profitable.

If approved, the investment closure, a number of pits on the between £150m.£200m in an will be the second largest abandoned Yorkshire colliery is undertaken by the NCB since expected shortly.

will be the second largest undertaken by the NCB since the "Plan for Coal" of 1974 Colliery, in the reversed the decline in the industry.

The approved to date is that for the mining complex at Selby, also of the final cost now run at around £600m It is thought that there would be jobs for around 1,500 men

at Thorne. Some might be moved from other pits in the area if they are closed. While there are no collieries in the four Yorkshire NCB areas officially earmarked for field colliery.

eastern side of the field are beginning to be exhausted.

The Doncaster field is one of the most modern in the country. with almost all of the pits constructed during or just after the 1914-18 war

A number of the pits, including Thorne, were constructed by German prisoners of war. Thorne, while having rich reserves, proved extremely difficult to work, having con-stant trouble with the shafts. Since its closure in 1956 has been kept on a "care and maintenance" basis by the NCB. Its shafts have served as ventilation for the nearby Hat-

# Money broker seeks recognition

BY JAMES BARTHOLOMEW

SARABEX, the controversial came into being in December control was not enough. From money broker which in 1977 complained to the European Community about the "closed shop" in London money broking, tions, explained to the European has applied to the Bank of England to become itself a money broking was a "closed recognised money broker. The six banks which have

biggest bank in the world. Money brokers are middlemen between dealers-mostly banks — in currency and deposits. In Britain they are

Sarabex's application has put the Bank of England on the spot because it is applying under new rules for the regulation of money brokers which extent that it insisted indirect

last year as a result of complaints made by Sarabex itself. Sarabex, which is Londonbased with Middle East connec-Commission in 1977 that London New brokers could not deal in the main currencies without joining the Foreign

Brokers' Association, it said. Sarabex maintained that this was against the Treaty of Rome. The Bank of England opposed under the Bank's wing and was therefore not in breach of the

December 15 last year the Bank itself took over the decisions on

sponsoring banks. References on the individual employees have also been requested.

conspli with the association to admit Sarabex. Another broker, Longmar, has

# **Swiss** reject stricter nuclear control

By John Wicks in Zurich

THE MARCH of Europe's anti-nuclear lobby received a setback yesterday when Swiss voters firmly rejected a referendum proposal impose stricter controls on nuclear power stations.

The proposal—which would have amended the Federal constitution and prevented further operation of existing power stations and the building of new ones without Parliamentary approval — was soundly defeated in a majority of Cantons in early

The Swiss Government had claimed that approval of the proposal would have made it virtually impossible to impossible increase further the country's electricity production.

The proposal had been the subject of considerable public discussion. A "yes" vote would have meant that Switzerland's four existing nuclear power plants would have had to obtain subsequent parilamentary approval or cease operation.

### **Encouragement**

government had advised against acceptance of the motion—which had been supported by the Social Democratic Party a member of the governing coalition— as well as by the Inde-pendent Party and a number of smaller parties on the extreme Right and Left. The vote in Switzerland will come as an encourage-

ment to the world's nuclear industry following the decision by Austrian voters virtually to cease nuclear produc-Slowing down of Swedish Government's nuclear programme and significant opposition to the proliferation both at home and abroad of nuclear power in West Also rejected this weekend

was a proposal to ban all advertising for tobacco and alcohol. This would have been an absolute ban, with the sole exception possibly of foreign publications " with an insignificant circulation in Switzerland," This would have led to the bauning from sale of widely-read magazines and newspapers from abroad and might have proved a contravention of the Helsinki Agreement.

# Demand falls as more prices rise

BY PETER RIDDELL, ECONOMICS CORRESPONDENT

products from much of British manufacturing industry, com-pared with last year. Cost pressures are increasing, resulting

in more price rises.

Those are the main conclusions of the Confederation of British Industry's latest monthly trends inquiry, published this significantly lower morning. It confirms the deterior four years ago. oration in confidence and conditions since last autumn reported by the more extensive quarterly survey at the end of

last month. The latest inquiry, covering 2.049 respondents in manufacturing, was conducted during the first fortgight of February. It reflects attitudes immediately after the lorry drivers' strike. The number of companies with more than adequate stocks

of finished products has in-ereased slightly. That may reflect the decision by many companies to continue produc-ing during the strike although goods could not be distributed. The same pressures may not

apply outside manufacturing. Retailers, not covered in the survey, have in some cases seen stocks run down. So an increase in demand for bank lending by some manufacturing companies might be partly offset elsewhere. Overall, CBI leaders are worried about liquidity and profitability pressures. The dis-putes appear to have squeezed cash flow and increased costs because of inefficient production

and distribution. The survey says "The gradual improvement in demand, which occurred through most of last year, has been at least checked in the first two months of 1979.

### Lorry dispute

tinue to experience stronger with the decline in three-month demand than the intermediate rates shown by the Treasury and capital goods sectors; and bill tender on Friday. smaller firms report stronger

The pattern reflects the conalthough the weakness of the intermediate sector is the result of long-standing difficulties in metal manufacturing and the severe impact of the lorry drivers' dispute on the chemicals industry.

compared with the worst period minimum. of last month's strikes although months of 1978.

in January, in the proportion trend in bank lending.

DEMAND IS weakening for of respondents expecting rising average domestic prices, has been maintained this month. However, the extent of the possible acceleration in price companies in the survey expecting higher prices remains significantly lower than three

That accords with the view of many economists that, in spite of labour cost pressures and present higher food prices caused by the weather and the road haulage dispute, the 12-month rate of retail price inflation should at worst not increase much above 10 to 13 per cent this year, compared with 9.3 per cent at present.

### Oil prices

In a BBC radio interview yesterday. Mr. Denis Healey, Chancellor, said he believed that the rate of price inflation could be kept in single figures if everyone kept their heads about pay. That took account of the increase announced in oil

Mr. Healey repeated his com-mitment to the official horrow-ing and monetary targets set out in last month's spending White Paper.

Immediate monetary worrles have been eased by the authorities' success in selling about £1bn of gilt-edged stock in the 10 days since the 14-point increase in Minimum Lending Rate. However, purchases of stock by financial institutions have been financed by a reduction in interest-bearing deposits and that has put pressure on the banks' squeezed reserve

apparent throughout manufacturing industry, although producers of consumer goods continue to experience experience apparents.

Appels,

That pressure has been reflected in a rise in overnight and seven-day interest rates in the money markets in continue to experience experience.

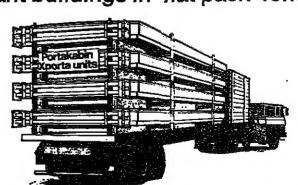
Consequently the Bank of England has responded with the announcement last Thursday tinued strength of the export that £742m of special deposits markets for consumer goods, held with it by the banking system were temporarily to be released from today.

That is intended as a technical smoothing operation and should carry the banks over the make-up day for the February hanking month on Wednesday. The expected volume of out- The hope is that their reserve put has recovered somewhat asset ratios will stay above the

. The release is designed to the balance of companies ex- avoid unnecessary fluctuations pecting a rising trend of pro- in the short-term interest rates, duction in the spring is still although without easing the lower than in the last few constraint that the corset control on the banks' deposits The sharp increase, reported will continue to impose on the

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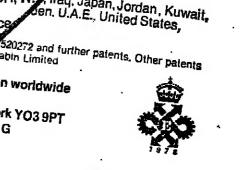
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Plaxtons (Scarborough) .

**Base Lending Rates** ANNUAL STATEMENTS INTERIM STATEMENT

not allowed to deal on their own behalf

sponsored the application without joining the Foreign include Bank of America, the Exchange and Currency Deposit Sarabex's case, claiming that the brokers' association was

who to admit to the moneybroking fraternity. The Bank is now processing Sarabex's application, calling for references from the six

The position is particularly delicate for the Bank because some induential members of the brokers' association are opposed to Sarabex's entry to market. The Bank is bound to

But the EEC Commission also applied to become a agreed with Sarabex to the under the new rules.

### Danes to seek EEC fish action over UK

By William Dulfforce in Stockholm

DENMARK'S Fisheries Minister, Mr. Svend Jakobsen, goes to the EEC Fisheries Ministers meeting in Brussels today with no expectation of settling Denmark's dispute with Britain over the Norway pout box. But he hopes that the EEC Commission can be stiffened into implementing its threat to haul Britain before the European Court of Justice.

The UK government's reply earlier this month to the commission's ultimatum over Britain's unilateral extension of the pout box and over the British ban on herring fishing in parts of the Irish Sea is regarded in Copenhagen as totally uncompromising.

Denmark wants action from the commission. Britain's ban on industrial fishing in the pout box has deprived Danish fishermen of one of their main sources of income.

The Danes believe that their protest against the ban has been strengthened by 2 new study undertaken by the International Council for the exploration of the sea, which indicates that the use of larger net meshes by British vessels taking fish for human consumption in the area would have a greater conservation effect than the ban | per cent.

# U.S. cautions Moscow over Vietnam conflict

THE U.S. has publicly and privately been warning China, Vietnam and the Soviet Union not to permit the Chinese-Vietnam border conflict to widen into a regional war, with possible serious consequences for international stability.

From a diplomatic standpoint, the Carter Administration would like to see the China-Vietnam dispute resolved in the United Nations and not on the battlefield. To this end it will support early convening of the Security Council. Otherwise,

SIGNS of the long-awaited slow-down in the U.S. housing indus-

try are apparent in the latest

figures for the industry which

the Commerce Department has

But economists say that sea-sonal adjustments to the data

at this time of the year make it

difficult to judge just how much of a decline may be on the way.

fell 20 per cent to an annual rate of 1.7m units from the

December level of 2m units.

Starts in the single-family housing market were down even

more sharply, declining by 26

New housing starts in January

BY STEWART FLEMING IN NEW YORK

the Administration's main hope is that China plans no permanent occupation of Vietnam, but intends primarily to punish Hanoi for its recent victory over the Chinesesponsored Government in

The U.S. Administration is also conscious of the fact that its ability to influence events in South-East Asia is now limited. President Carter himself had urged Mr. Deng Xiaoping, the Chinese Vice-Premier, not to retaliate against Vietnam, during his visit here three weeks ago—

Housing starts decline by 20%

housing starts ran at an annual

rate of 2m, a level established early in 1977. In both 1977 and

1978, however, the annual rates

in January were well below average at 1.3m units (1977) and

Economists have been pre-

dicting for several months that the high level of interest rates

in the U.S. would soon hit the housing industry, making credit for new home-buyers less

The latest figures do suggest

that this may now be happen-

January fell 18 per cent to an inflation.

1.5m units (1978).

readily available.

Throughout most of 1978 annual rate of 136m units.

Building permits in ship as a hedge against

"When you first realize you can sell overseas, somehow it

"Of course, there are problems, too: cash flow, for instance,

gives you a new sense of freedom and independence. Suddenly

especially in a seasonal fashion business like mine. But, with

ECGD's bank guarantees, the bank lends me money for exports

at low interest rates and I get payment on shipment. It's like having

bills discounted cheaply—and virtually guaranteed. Fantastic!

you've got the whole world to go at. You know what I mean?

but to no effect. The U.S. has repeatedly in recent weeks been urging the Soviet Union not to become involved, should hostilities break out. on behalf of its client state,

However, relations with the Soviet Union have been going through a sticky patch of late. What had been coolness brought on by Mr. Dang's visit to the U.S. deterior acd further last week, with both super-powers accusing the other of interfering in Iran, and with U.S. suspicions of Soviet motives heightened because of the murder in

These figures are less volatile

and this is the lowest rate at

which permits have been issued

A slowdown in the housing

industry will be welcomed by

many economists who see the

housing market as one of the

sectors of the economy where

inflationary pressures are now

most severe. Speculation in housing has been tampant in

many parts of the country over

the past year with buyers driv-ing up prices. They have in-

creasingly viewed home-owner-

since January, 1977.

to Afghanistan.

In its public statements over the weekend the Administration has been most careful not to appear to take sides. The State Department spokesman condemned both the Chinge invasion of Viet-nam, and the prior Vietnamese invasion of Cambodia. He added that the U.S. had

been in contact with both countries as well as with the Soviet Union "urging and counselling restraint."

One worry for the Administration is the extent to which the process of completing the

normalisation of relations with China may be harmed by this outbreak in hostilities. An official pointed out over the weekend that normalisation was "an accomplished fact and will not be reversed."

But opponents of closer U.S. ties with Peking will make much of the issue in Congress. They will claim that Mr. Carter has not done enough to secure the integrity of Taiwan and that Peking's assertion of peaceful intent cannot now be taken for

### UN fails in bid to send troops to south Lebanon

the United Nations to deploy peace-keeping forces in the border area southern Lebanon. The Israeli stance was conveyed at talks in Jerusalem two days ago with UN officials, who in turn relayed it yesterday to Lebanese officials and leaders of the Palestine Libera-

tion Organisation. Israel's negative according to officials here, has led to the suspension of plans to send soldiers of the UN peace-keeping force to the border strip which is controlled latter by Israeli-supplied Christian April.

ISRAEL has blocked moves by militiamen, and for deploying units on the Lebanese army alongside UN outposts

> day as saying that without firm guarantees. Lebanese troops will not be sent to the south. fuelled by growing tension in Beirut following speculation about an impending round of large-scale fighting between Christian Militias and Syrian troops of the Arab League deterrent force when latter's mandate expires in

KILLING OF US ENVOY IN KABUL

# Head of Afghan security denies Soviet involvement

security forces Commandant General Daoud Taroon denied in an interview here that Russian advisers were present at the hotel where U.S. ambassador Adolph Dubs was held hostage by terrorists last week before being killed.

The acting U.S. Secretary of State Mr. Warren Christopher has since protested in the strongest terms to the Soviet Ambassador in Moscow about the role of Russian advisers in the hours before Mr. Dubs death. American officials here say that four Russian officials were at the Kabul hotel where Mr. Dubs was taken by kid-nappers on Wednesday. They named one of them as Mr. Government officials were quoted in the Press here yester-

said to have been advisers to the Afghan police force General Taroon, as head of security had overall command of government forces last Wednesday. But he was not avail-able then to American embassy staff who wanted to prevent Afghan troops from storming

In answer to a question about the U.S. protest he said that no Russian advisers were pre-sent on Wednesday. "This was our own operation and we made our own decisions." Pressed further on the point which threatens to sour further U.S. Soviet relations he repeated his denial and spoke out strongly

The head of Afghanistan's against foreign reports of the influence Afghanistan.

American officials apparently took no pictures of the Russians they say were present. Contrary to report from Washington, it. is also said here that the Russian advisers agreed on Wedesday with American pleas for patience with the terrorists in order to draw them into nego

tiations. General confidence that the Government was fully in command of internal security in Afghanistan but said it was impossible to predict terrorist incidents like the one against the American Ambassador. Foreign embassies had been advised accordingly. Sergei Bakhturin, the Chief of He denied that the kidnapping Security at the Russian embassy, while the other three are spread insurgency.

or mr. Duos was part of a wide-spread insurgency. He expressed deep regrets for the death of Mr. Dubs. Presi-dent Nur Mohammed Taraki wrote a personal letter to Mrs. Dubs in what, in part, would seem to be an attempt to restore Afghan-U.S. relations. General Taroon answered questions on the incident after an American colleague and myself had been taken to him when police detained us on Saturday while inquiring into our visas. One of the most powerful men in the present Communist regime, he is a tough but often humorousformer Air Force Major prob-ably in his forties who speaks some English.

### Tough new measures against hostage-taking

BY BRIJ KHINDARIA IN GENEVA

KIDNAPPINGS such as those of industrialists Hans Martin Schleyer, and Baron Empain will become more hazardous for terrorists or just plain criminals because of a new international treaty against the taking of

The draft of the treaty completed in Geneva by a United Nations committee obliges governments to severely punish these with take hostages regard-less of the reasons or the

circumstances involved. Governments will be obliged to ensure that their territories are not used for the preparation of an act of hestage taking and will have to prosecute the offender in all cases unless he has been extradited. They will also have to return any ransom rightful owners.

Both the taking of hostages and being an accomplice to such an act are branded as-crimes to be fought with every means at the disposal of states that sign the planned treaty. The draft text will now go for

approval to the United Nations General Assembly in New York. The treaty will cover all acts of hostage-taking including the hijacking of aircraft provided that foreigners are involved regardless of whether the motives were political or simply

It will not extend to kidnap-pings such as that of Italian leader Aldo Moro, where both offender and victim belonged to the same country and where the act is perpetrated in their owncountry without outside help:

The treaty's main loophole is the acceptance that national liberation movements against "colonialism and racist regimes," may hold hostages because their struggle is sanctioned as being a legitimate protocol added to the 1949 Geneva conventions of the International Red Cross. This leaves in a grey-area the

position of offenders, such as Namibian guerrillas, who might take white hostages in a third country.

### Tanzania and Uganda agree to peace talks

NAIROBI — Uganda and Tanzania will discuss ways of ending their border war in Nairobi on Wednesday at a meeting arranged by the Organisation of African Unity, officials of the organisation said vesterday.

President Idi Amin of Uganda quoted by Uganda Radio, announced yesterday that he had also accepted proposals by Libya for ending the fighting, and had ordered his forces not to fire except in self-defence.

But Tanzanian Government officials said President Julius Mr. Aii
Tureiki, the Libyan Foreign
Minister, who is in Dar es
Salaam after talks in Uggada,
that Libyan mediation was unnecessary because the OAU was
dealing with the matter.

Fighting broke out on the border, west of Lake Victoria, last October. Uganda claimed last week that Tanzanian forces were occupying an area of 350

### Light polling as Bangladesh chooses its MPs DACCA-Voting was light in

Dacca yesterday as Bangladesh went to the polls to elect its second Parliament since independence in 1971. The 300-member Parliament will be the first under the rule of President Zia-Ur Rahman, who came to power three and a half

years ago.
The President's Bangiadesh National Party is expected to win a clear majority. Full results of the election are

expected today. One reason for lack of enthusiasm in the polling appears to be that whoever wins. Gen. Zia will remain ruler of the country. That was decided in presidential elections decided in presidential elections last year. The General has said, however, that he wants a democratically elected Parliament with a Prime Minister, although he will retain executive power.

As head of the armed forces and martial law administrator.

Gen. Zia has promised to lift martial law after Parliament has been formed. Reuter

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### Rhodesian raid 'routine' BY TONY HAWKINS IN SALISBURY

RHODESIAN officials denied last night that Saturday's airstrike against guerrilla bases near Livingstone, close to the Zambian border with Rhodesia, was in retaliation for last week's shooting down of an Air

Rhodesia airliner at Kariba. A military spokesman said the raids were part of a continuing exercise against Mr. Joshua Nkomo's guerrillas in Zambia and that such raids would continue "as and where

Although it seems certain that the airliner was shot down by ground-to-air missiles, the spokesman pointed out that the cause of the disaster had still to be officially confirmed and, accordingly, there was no question of Saturday's raid representing the "just and warranted retribution," promised by the Rhodesian Cabinet.

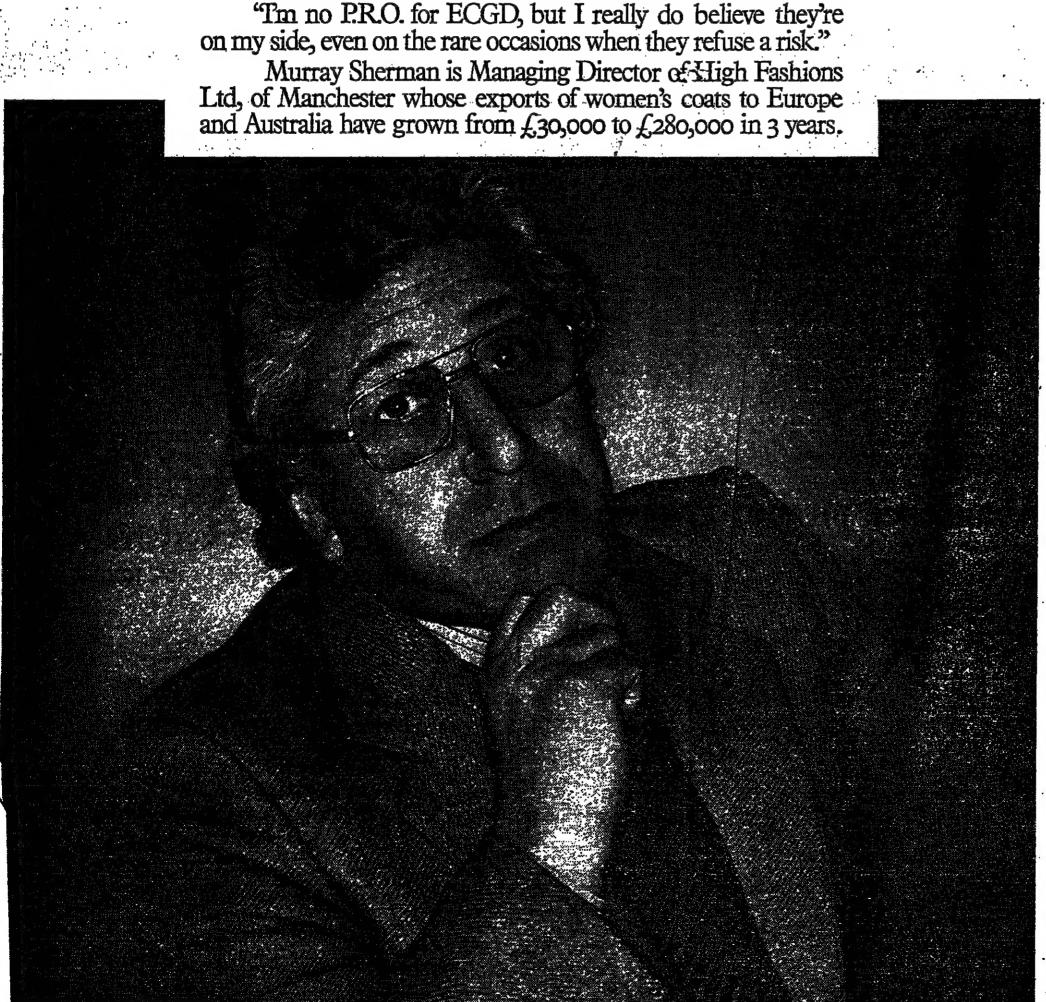
gence reports had disclosed a build-up of guerrillas prepara-tory to infiltration into Rhodesia and the attacks had been aimed only at camps out-side the built-up area of Livingstone town.

angstone town.

Combined operations here earlier reported that the railway line between Salisbury and Umtali, on the country's eastern border had been attacked by guerrillas near Marandellas, about 50 miles north-east of Salisbury. The guerrillas dam-aged a bridge and train services were interrupted.

Reuter adds from Lusaka: The Rhodesian aircraft which bombed camps near Livingstone caused no deaths and only two injuries, the Zambian Sunday. Times said yesterday.

FINANCIAL TIMES, published except Sundays and holidays, subscription rate \$365.00 per 8 Second class postage paid at York, N.Y. and at additional in Officials said recent intelli-



BCGD insures from aute of contract of account at the sum of goods. Cover is available for contracts in sterling or other approved currencies for: Continuous sales worldwide of raw and processed materials, consumer goods and production-line enginess to goods. Cover is available for contracts in sterling or other approved currencies for: Continuous sales worldwide of raw and processed materials, consument, ships and aircraft [ Constructs goods [ Sales to and by overseas subsidiaries of UK firms [ Sales through UK confirming houses and by UK merchants [ Single large sales of capital project loans and lines of credit to overseas be works contracts [ Services. ECGD also makes available. Guarantees to banks providing export finance, often at favourable rates of interest, including [ Cover for investments overseas [ For full dears [ Guarantees for per-shipment finance [ Consortium contingency insurance [ Cost escalation cover.]

I at your local EGGD office. To make an appointment or for information contact the Information Cambridge, Bristol, London West End, Croydon or Tottenham Export Credits Guarantee Department - quoting reference FTT - at Glasgow, Belfast, Leeds, Manchester, Birt bury House, London EC2P 2EL. (Tel: 01-606 6699. Extn. 258).

# Carter's Geneva package

AMERICAN textile companies and unions have agreed to put their weight behind the trade negotiated by the Carter Administration in the Carter Administration in the notably the European Com-Geneva multilateral talks. This munity, had warned flatly that is in return for a programme. U.S. failure to bargain on its turers Institute, welcoming the of export promotion and pro-ductivity incentives and of curbs on future import surges, which was announced by the White House at the end of last

The bargain thus struck, saves the final stages of the Geneva negotiations from collapse in two important respects. It removes the threat that the textile lobby on Capitol Hill, at the eleventh hour, might again try to bar the Carter Administration from making any concessions to foreign countries in Geneva on U.S. textile tariffs.

textile tariffs would jeopardise the Geneva talks.

Equally vital to a successful outcome in Geneva, the deal with the U.S. textile industry clears the way for Congress to waive the administration's obligation to impose countervailing duties on subsidised goods entering the U.S. Until Congress extends this waiver, foreign countries have refused to sign a Geneva accord.

The mood in Congress now seems to favour a quick resolu-tion of the walver saga, with eneva on U.S. textile tariffs. Mr. Charles Vanik, who chairs President Carter last autumn the House of Representatives vetoed an attempt by Congress, trade sub-committee, forecast- U.S.

spearheaded by representatives ing that the waiver extension from the big-spinning states of could be ready for a vote by the North and South Carolina, to full House by the end of this

> turers Institute, welcoming the new textile agreement, said that while it would not roll back textile and apparel import levels, it would bring future import growth back into line with that in the domestic mar-

Key to the agreement are the provisions to stem future dis-ruptive "surges" in imports. rom the 18 countries with which the U.S. already had bilateral agreement under the umbrella of the Multi-Fibre Arrangement. The three most important of these are Hong Kong, Taiwan, and South Kores accounting for nearly half of

> the deal, until March 31. In an unprecedented move the privately-owned NCM said it will insure 80 per cent of any loan up to a total of FI 250m (\$125m) and reinsure the risk fully with the Dutch state. The NCM does not finance untied normally

may back

gas contract

PROSPECTS have improved

for the signing of a contract

for the delivery of 160hn cubic metres of Algerian gas

to Holland and West Ger-

A number of Dutch banks

will form a consortium to make a proposal, for the fin-ancing of the deal, to Sona-

trach, the Algerian State oil

ment by the Dutch export

(NCM) that it is prepared to

make a "unique" offer to insure the financing of the

project. The Dutch have now agreed to extend, for the second time, the deadline given to Sontrach to complete

insurance company

and gas company.
This follows an announce

Algerian

By Charles Batchelor in Amsterdam

It has however set three conditions. Sonatrach must agree to designate Arzew as the site for the gas liquelac-tion plant and tanker terminal. West German banks must also be prepared to provide up to Fl 250m in financing, and finally, Sonatrach must declare that the funding of the project has been satisfactorily completed.

The importance of the Algerian contract for Holland's energy policies has clearly been the major factor in persuading the Finance Ministry to approve the novel insurance plan, The Dutch hope to sign

more contracts to import LNG to supplement the country's own large but declining The NCM's offer has persua

ded the previously hesitant Dutch banks to reconsider financing part of the project. The three largest banks, Amersterdam-Rotterdam Bank (AMRO), Algemene Bank Nederland and Centrale Rabobank said they were involved Gasunie, the national gas distribution company, said

# U.S. textile industry backs Dutch banks World shipbuilding orders fall 34%

orders placed last year, com-pared with 1977, and the established shipbuilding nations continued to lose market share to the growing yards of the developing world.

According to the latest annual of statistics from Fair-International, orders olay. placed last year slumped to 915 ships totalling 13.7m dead-weight tons, against 20.8m dwt

This was in spite of a further proliferation during the year of government subsidy schemes for shipbuilders, which enabled them to lower prices and extend credi: terms to customers.

The report says the height of this bidding for orders was reached with a set of tenders for six 16,500 dwt cargo ships for Pakistan. Japan won the order, with a bid based on 100 per cent credit spread over 30 years with no payments in the first 10 years and a 3 per cent rate of interest thereafter.

In spite of Japan's keen attack on the developing country market in the closing months of last year, the world's biggest shipbuilders lost market share last year, taking orders for 308 ships ofr 5.5m dwt-2 40.5 per cent share of the total, compared with 47 per cent a year earlier. This reflects Japanese shipbuilders' problems with the

appreciating yen. market sha number of other leading per cent.

shiprepairing, bustling Malta

Drydocks seems likely to

announce another good year since being converted in 1959

to merchant ship repairing from

being a major naval base.

The change-over from naval

work to commercial work is

force of 5,200, confidently pre-

\$42.5m for the current financial

While some Mediterranean

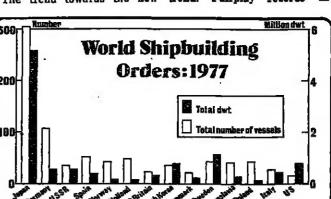
repair yards are closing and others are desperately in need of work. Mr. Calleja and his team estimate that the turnover

for the next financial year will

be at least maintained, possibly

THERE WAS a 34 per cent drop shipbuilders also lost ground. Because Fairplay's figures in the volume of shipbuilding including Holland, UK, Norway, are measured in deadweight and Spain, with shares of 1.8, tons, shipbuilders specialising 2.3, 0.7, and 2.9 per cent respect in more sophisticated but tively, measured by deadweight smaller craft tend to show up badly.

tonnage. Brazil (1.8 per cent), South Last year, the scale of order-Korea (5.8), Poland (5.9), ing for some of these specialist ships, notably container vessels, increased against the general Sweden (7.8), and Taiwan (3.1) all improved their shares. The trend towards the new trend. Fairplay records 124



Malta's new Red China Dock raises hopes

shipbuilding countries has been containership orders in the the cause of anxious debate in year, compared with 82 the the shipbuilding committee of previous year, but notes that the Organisation for Economic sists of one large interest in Japan and a host of other

countries vying for place with

market shares of well under 10

South Korea has emerged as a Co-operation and Development successful bidder for this type
According to the Fairplay of order too.

figures, the industry now con
Orders for dry cargo ships

Because Fairplay's figures tanker orders, which fell from Bulk carrier orders fell very sharply, from 5.8m dwt in 1977

to 2.3m dwt last year. Last year was also one in which Greek owners drew back from the new building market, after suffering escalating prices on existing yen-based contracts.

Only 13 ships were ordered by Greek owners last year, compared with \$5 the year before. Japanese interests remained much the biggest purchasers, ordering 154 ships of 2.4m dwt. U.S. owners came next, stimusubsidies, with 62 orders total; ling 1.8m dwt. Hong Kong owners, who represent a rapidly growing force in the industry, were third in terms of tonnage,

with 29 ships of 1.2m dwt. Encouraged by the shipyards', bargain offers, a number of developing countries sought to expand their fleets and the list. of countries whose rate of ship ordering increased last year. interesting reading; the U.S., Bravil. China, the U.S., Branil. Indonesia, Pakistan, Australia, Turkey, Japan, Italy, Romania. Germany. Malagasy and Iran.

Orders for dry cargo ships were halved last year to 435 vessels of 3.3m dwt as the shipping slump worked through into this sector, but there was a steadying of the decline in the same address.

# Wheat deal failure played down

Western delegations here who are now trying to play down the importance of cereals as part of the Tokyo Round trade

Delegates point out that wheat was always kept separate from the Tokyo Round although item in the agricultural sector. Failure to conclude a new wheat arrangement to replace the 1971 accord, which was extended here on Wednesday, is. now being presented as some-thing regrettable but not harm-

to obtain inclusion of a separate accord, but the wheat conference failure has also meant that ence failure has also meant that the Mr. Hathaway said, however, their will be nothing in the that the U.S. would be ready to overall Tokyo Round package on such grains.

Nor will there be a food aid convention immediately to ensure food security and sufficient grain supplies for developing nations that might experience food shortages.

THE FAILURE of the wheat was difficult to conceive. The ture, indicated here that his conference has produced a Common Market fought a long Government would be willing sudden change of tone in some and hard battle with the U.S. to offer bigger quantities to accord on secondary grains an open question whether there alongside the planned wheat will be a new food aid

> contribute an amount equal to total contributions made into any food aid reserve stocks by other nations, up to a ceiling of about 5m tonnes out of a total of 10m tonnes.

Although developing nations import about 22m tonnes of wheat annually, for the poorest thing regrettable but not harmful to the Tokyo Round.

Earlier in the trade talks the United States repeatedly said that a package without wheat States region as some supportant than having that a package without wheat sould be supported by the poorest among them the availability of adequate food aid stocks is more important than having an international wheat support and the poorest among them the availability of adequate food aid stocks is more important than having an international wheat support and the poorest among them the availability of adequate food aid stocks is more important than having an international wheat annually, for the poorest among them the availability of adequate food aid stocks is more important than having an international wheat support in the trade talks the states of a package without wheat support in the trade talks the support i

in forming a consortium.

BY A SPECIAL CORRESPONDENT AMIDST A generally depress- so many materials and items of equipment, there is undertand-

> Certainly on the basis of recent experience, prospects of maintaining turnover are enhanced—more especially so big new Red China Dock will come into operation.

never easy, and in some dry-docks has failed entirely, but This will accommodate super-Mr. J. Calleja, general manager tankers and other ships of up of Malta Drydocks, with a workto 300,000 tonnes d.w. and its dicts that his company's turn-over will exceed its forecast of imminent commissioning must already be causing concern among other drydock operators in the Mediterranean.

> tanker operators are supplying docking details of ships likely to use the new facility. Malta already has a healthy business vive. in repairing ships for other

Moreover many of the ships are consistently good quality. from nearby Italy, Greece, The Drydocks are also are Spain, and Arab states.

Nations represented by 65 since in mid-1979 the company's flags have used Malta's repair facilities in recent years. Even new ships built in Yugoslavia's yards are frequently sent to Malta for drydocking prior to sea trials and delivery.

According to Mr. France Spiteri, chairman of Malta Drydocks, price alone is not a Even at this stage major reason why his company is thriving, even expanding, at a time when so many other repairers are struggling to sur-

He explains that Malta has Mediterranean countries, some not even the advantage of being with their own very substantial a terminal port which inevitably

Much of Malta's success is major national fleet. Instead he attributed to its strategic geo- attributes the progress to its able reluctance to forecast graphic position and in the curreputation of being able to offer profits when so many costs are rent calendar year the docks and adhere to good delivery beyond the company's control. utilisation has been 97 per cent. dates and providing work of

The Drydocks are also shipbuilders in a modest way and two small tankers for China have been built. Ships up to about 10,000 idw can be built and there is demand for large. single-point mooring buoys. Diversified activities include general engineering work and a growing structural steelwork business for civil engineers building warehouses, factories, workships and bridges.

At a time when several shiprepair and shipbuilding companies are experimenting with or announcing agreements for workers co-operation in manage-ment. Mr. Spiteri and his workers' council point out that they have not had a strike since 🕆

### New cheap U.S. flights

TRANS INTERNATIONAL, a U.S.-based airline, plans to introduce cheap once-weekly flights between Frankfurt and New York this summer, at rates as much as 50 per cent below existing fares.

Fares on the Frankfurt to New York route will be DM 499 Ho (£136) single in the off-peak Be season and DM 599 in the peak. Jap

### World Economic Indicators

INDUSTRIAL PRODUCTION % Change

.K. S. Yest Germanj aly ance	111.3 150.4 124.3 118.6 132.0	Nov. 78 109.6 149.5 130.7 137.0 130.0 Oct. 78	108.9 148.5 124.6 141.6 129.0	106.3 139.6 115.2 113.5 123.0	previous year +4.7 +7.7 +7.9 +4.5 +7.3	base year. 1975 = 100 1967 = 100 1970 = 100 1970 = 100	
elland Igium Pan	120.0 125.5 125.3	122.0 125.2 124.1	121.0 124.4 124.4	116.0 119.6 117.3	+3.4 +4.9 +6.8	1970=100 1970=100 1975=100	
<b>a</b>							

# the outlook for the project is Since Malta needs to buy-in drydocking and repair facilities, attracts business, nor has it a 1971. Rockware – leading the way home with Widemouth:

For the first time since the advent of the ring-pull can over ten years ago, a major packaging innovation for beers and soft drinks is

now in retail distribution.

The Widemouth bottle from Rockware Glass is being adopted increasingly by both brewers and soft drinks manufacturers as a strong alternative to the can.

Rockware developed this container in the knowledge that research confirmed glass as being traditionally preferred by beer drinkers. Also confident that soft drinks sales could only benefit from

being packed in a Widemouth convenience container.

Hence the Widemouth, with its ring-pull closure, plain lip for drinking, lightness and modern image - a host of advantages for consumer and packer alike. Added to these quality features are opportunities for faster filling speeds with resulting unit cost savings.

Rockware's new Widemouth has already had significant impact on the packaging market. The beer bottle, for example, has collected impressive packaging awards against severe competition.

Widemouth is available in a variety of sizes for both beers and soft drinks. For further information, comprehensive technical advice and installation expertise, call Rockware - our revolution in packaging for the 1980's is here.

package appeal

Rockware Glass Limited, Riverside House, Riverside Way, Northampton NNI 5DW Telephone 0604-21255. Telex 311473.

# Group profit before tax was £182m

This is a 9.6% increase over the figure for 1977, but because of inflation is worth little more in real terms. International activities produced much the same profit; UK earnings benefited from good growth in current account balances and lending.

# Out of this, tax takes £59m

Changes in accounting for deferred taxation have reduced this.

# and proposed dividends take £17m

The maximum permitted, this is a small increase in real terms, the first for six years.

# so profit retained is £106m

This contributes to shareholders' funds now amounting to £1,034m and helps to support world-wide operations and a balance sheet totalling £14,750 million.



# Lloyds Bank Group

Rights Offering

## The Bank of Nova Scotia Offering of 5,156,250 Additional Shares

(par value S1 per share)

The Bank of Nova Scotia is offering to its shareholders of record on February 7, 1979, the right to subscribe for additional capital stock on the basis of one new share for each eight shares held. Transferable subscription warrants have been mailed or delivered to shareholders. Rights may be bought or sold on most Canadian and United Kingdom stock exchanges.

Subscription Price: \$21.75 per Share

The rights expire at the close of business on March 15, 1979

For full particulars, reference should be made to the formal offer from the Bank to its shareholders dated February 12, 1979. In addition, an information circular has been prepared. Copies of the above and assistance regarding this offer may be obtained from any of the undersigned.

Wood Gundy Limited

Burns Fry Limited

Dominion Securities Limited

A. E. Anes & Co. Limited . Pitfield Nackay Ross Limited McLeod Young Weir Limited Lévesque, Beaulien Inc.
R. A. Daly & Congany Limited
Pemberton Security Limited McLean, McCarthy & ompany Limited Gardiner, Watson Limited Equitable Securities Limite. John Graham & Company Line ed Molson, Rousseau & Co. Limited Burgess Graham Securities Limite. Saunders Hatt Limited

Greenshields Incorporated Richardson Securities of Canada Walwyn Stodgell Cochran Murray Limited Bell, Gouinlock & Company, Limited F. H. Deacon, Hodgson Inc. Moss, Lawson & Co. Limited Grenier, Ruel & Cie Inc. Goulding, Rose & Turner Limited Fraser, Dingman & Co. Housser & Company Limited Houston Willoughby Limited Rowe & Pitman, Hurst-Brown

Merrill Lynch, Royal Securities Limited Nesbitt Thomson Securities Limited Midland Doherty Limited Scotia Bond Company Limited A. E. Osler, Wills, Bickle Limited Geoffrion, Robert & Gélinas Ltd. Mead & Co. Limited Odlum Brown & T. B. Read Ltd. Casgrain & Company Limited Winslow & Winslow Limited Alfred Bunting & Co. Limited MacDongall, MacDongall & MacTier Ltd. Tassé & Associés, Limitée S. G. Warburg & Co. Limited

**UK NEWS** 

# Europe's MPs are warned against 'power grabbing'

THE directly elected European be found in developing demo-Parliament should adopt a cratic control in areas where it pragmatic, cautious attitude to power by openly clashing with the EEC's other institutions.

This "realistic" if low-pitch approach is recommended by Mr. Christopher Tugendhat, European Commissioner for the Budget, in a pamphlet published today by the Conservative Political Centre. He admits He admits that, to some, such a programme

After the first direct elections the European Parliament should seek to complement rather than emulate national Parliaments in decisions, Mr. Tugendhat

does not already exist, he argues. This means "finding new fields" to conquer rather than seeking to camp out on cultivated front garden.

The Community's Treaties already clearly set out the legal basis of the relationship between the main institutions, and, unless it is prepared to mount a challenge to the member states, the Parliament must work within this framework, Mr. Tugendhat says.

"If the directly-elected MPs yield to temptation to set their sights upon acquiring power, in relation to the Community's other institutions, analazous to the powers enjoyed by national The key to success for the Parliaments in relation to directly-elected Parliament is to national Governments, they

an entirely inappropriate path tremely damaging to the European Parliament's prospects of

increasing its influence. "It would be bound to lead to a major constitutional collision with the Council of Ministers in which the Parliament would be certain to sus-

tain the severest injuries." The Conservative Party's strong commitment to the EEC is stressed in the party's initial campaign guide for direct elections also published in London

Christopher Tugendhat; Con-servative Political Centre, 32 Smith Square, SW1P 3HH; price

Campaign Guide for Europe 1979: Conservative Central Office, 32, Smith Square: £2.75.

# Household insurance likely to rise 25%

nsurance companies on housenold accounts this year is fore-Mackenzie in its latest review of composite insurance com-

It points out that the household account has been the most troublesome for composite companies in recent years, resulting in large losses for those involved. Two factors have affected this class of business: abnormally high weather losses and a rising number of claims in particular for thefts. Insurance company crime losses, the £23m in 1973 to £64m in 1977.

The problems have been aggravated by policyholders not raising their insurance to take account of rising values, in money terms, of both houses and their contents. This has resulted in claims costs rising

the problems profitability to

three months but is still con-

tainable provided the political

circumstances do not inhibit the

Government's apparent desire

to limit public sector borrowing, according to Mr. Terry

Burns of the London Business

Writing in the ISIS Bulletin, published by City stockbrokers Laurie Milibank and Company,

Mr. Burns argues that as long as the trade balance is in

surplus the UK should avoid any

runaway inflation, although the

price of a strong pound will be

Mr. Burns' restrained pessi-

mism, or perhaps cautious optimism, is similar to the view

held by many influential City

and academic economists. Although the rate of increase in

earnings in the current round

assumed last autumn, and the

BIG FLOWS into the new 18th

certificate boosted net National

Savings receipts to £161.7m in the four weeks to February 2.
The total more than doubles
December's £75.7m, although the
savings market is traditionally

sluggish during that period.

The main impetus last month

18th certificate launched at the

end of January. In its first five

days, the new issue attracted

£61m, leaving a net intake for

issues apart from the retire-

ment issue of more than £65m.

Both the National Savings

looks like being higher

profits' weakness.

Britain worse off but

the slide can be halted

BY PETER RIDDELL, ECONOMICS CORRESPONDENT

per cent increase in householder accounts. The com income for British panies have endeavoured to lift the sums insured to the correct level by index linking. They are now imposing severe penalties not keep sums insured up-to-

> Finally, the companies have increased the premiums rate on contents to cover the rising number of claims—the latest leading composite company to take such action being Royal

> Insurance.
> Wood Mackenzie expects these various measures to improve premium income of com-posites in 1979 by 25 per cent. and considers that this rise should alleviate the more utgent

But over the longer term, it considers that further corrective action will need to be taken. such as increasing the premium rates on buildings and making policyholders pay a higher proaction is likely to be necessary because weather losses are insurance companies to over- becoming increasingly frequent and and subsidence claims will in

> sterling remains stable, the 12month rate should at worst not

Mr. Burns argues that "it is

possible to be hopeful even if

the growth of earnings is between 12 and 15 per cent.

With sterling remaining strong

and the balance of payments in

surplus the increase in the infla-

tion rate is likely to be limited

otherwise a major loss of com-

squeeze on the personal sector

although company profitability

will suffer. Output growth, ex-

cluding North Sea oil, would be

modest, but there would be no

major recession and some

recovery might emerge in 1980.

for a year. An important factor was the increase by 21 points to 12 per cent at the start of

44 weeks of the financial year 1978-79 amounted to £405m.

Total remaining funds admini-

stered by the Department of

National Savings now amounts to more than £11bn, compared

with £9.8bn a year ago.

on investment accounts.

This will limit the monetary

petitiveness would ensue.

per cent range.

### **Decision** soon on **Tarling** appeal

former chairman of Haw Par Brothers International who faces extradition to Singapore, is expected to hear in the next is expected to hear in the next few days the outcome of his appeal to the Home Secretary. Representations were made last week by Mr. Tarling and his counsel, Mr. Louis Blom-Cooper, QC.

Mr. Tarling, who was once a business colleague of Mr. Jim Slater, faces extradition on five company law charges relating

company law charges relating to the 1972 and 1973 accounts of Haw Par.

This month the Lords' Appeal Committee refused him leave to challenge a ruling by the Queen's Bench Divisional Court that it would be neither "unrequire him to return to Singapore to face the charges.
At the time Mr. Tarling's

counsel argued against extradi-tion on account of the lapse of time since the alleged offences, and because the charges were "trivial." and did not involve

### Irish party seeks closer Ulster ties

A POLICY document urging a close political alliance between by Fine Gael, the republica has deteriorated in the last strike are temporarily boosting main opposition party. The proprices, the rate of price inflation posals were announced simulshould not accelerate this year taneously in Dublin, Belfast and back to the levels of the mid-Lundon,

The plan follows a year-long study instigated by Dr. Garrett FitzGerald the party's leader and former Irish Foreign move much above the 10 to 13 Affairs Minister. similar

The results examinations undertaken by the lrish Government party Fianna Fail and the Irish Labour Party will be announced shortly. Dr. FitzGerald stressed that the Fine Gael proposals were not "an attempt to sketch out blueprint for a united

izeland, ' He added that Fine Gael did not expect the plan to change Northern Ireland overnight. The document urges a close

political alliance, perhaps a federal North-South system, between the two parts of Among the proposals is the possibility of a police force

### Certificate lifts National Savings which could operate freely throughout Ireland. Bid to improve accounts had their best month

shop efficiency By Our Consumer Affairs

Correspondent
A PROJECT to improve labour
efficiency in the retail trade has the month in the interest paid the investment account in fact Economic Development Office in conjunction with the industry's has helped stem previous net training board.

The project, which is expected to take 15 months to complete, will use case-studies to show how greater efficiency can be achieved, leading to more pay for employees and

# Slower growth is forecast

BOTH long- and short-term mand will therefore have to expected to rise above £9.5bn in interest rates now look extremely high in real terms, and this is likely to cause significantly slower economic growth

The City stockbrokers Montagu Loebl Stanley says there must be a sustained reduction by either the public or private sector if rates are to fall.

In its economic circular the firm states that though it views the prospects for the publicsector borrowing requirement with more confidence than some other commentators, it is unlikely that maintenance of the requirement at £8.5bn will

allow a sharp fall in rates. The reduction in loan

come from the private sector, and is likely to be the result domestic product.

"We would therefore be surprised to see the current high level of short-term interest rates persist beyond the summer months, and reductions in minimum lending rate should occur at that time."

In summary, the firm forecasts that average earnings are unlikely to rise by more than per cent in 1979, and that worst price inflation will reach only 12 per cent.

It believes economic recession is probable, and that CDP

the 1978-79 fiscal year; and the Government will probably slower growth in gross achieve its £8.5bn target. The City stookbrokers James

Capel believes that the year-onyear inflation rate will be at least 13 per cent by the last quarter of the year.

A deflationary Budget of £1.75bn would be required to reduce the public-sector borrowing requirement to a level consistent with the forecast £8.5bn and continued monetary restraint.

Such fiscal result of a 15 per cent rise in average earnings, will exacetbate the slowing in output and growth will not exceed 2 per demand in the second half of cent in 1979. The public sector the year and add to inflation, borrowing requirement is not says the firm.

two

Vero

Lam store

# **Problems for** Hemerdon may be solved soon

BY PAUL CHEESERIGHT

ing the ownership of Hemerdon issue. Records of share promises Mining and Smelting which is in the 1960s and early 1970s involved in what could be the biggest UK metal mining project of this century, are close to being unknotted and may be settled in the Supreme Court of Bermuda next month.

The company is in a joint venture with Amax Exploration of the U.S. to decide whether a tungsten-tin-china-clay deposit at Hemerdon Ball, outside Ply-mouth, can be exploited. It was originally set up by Mr. W. A. Richardson, who raised money for it largely in Canada and the

No shares of the 5m in issue have ever been allotted. They are held in trust by a bank in Bermuda, where the company is registered, by order of the Supreme Court. Legal problems have arisen about rightful ownership of the shares.

"We are getting closer to reaching an understanding with Mr. Richardson, that he will assist and co-operate with the trustee rather than delay and frustrate," Mr. Uwe Manski of Dunwoody of Toronto said at

Dunwoody has been appointed trustee for the grubstakers those who financially supported Mr. Richardson — by the court. Mr. Richardson, whose executive control of Hemerdon ceased in December 1976, claims 1m shares. The problems faced by Dunwoody in its negotiations with him centre on the fact that

1.600 grubstakers claim a right to a total of a further 9m shares.

BY LISA WOOD

Mr. Bruce Millan, Scottish Secretary, is to meet Mr. Gene Woodfin, chairman of Marathon

Construction, of the U.S., to-

morrow in an attempt to reverse

the company's rejection of a Government order for an oil-

drilling rig from the Clyde-bank yard.

Goodyear's management is simultaneously to make a state-ment on the future of its Scot-

More than 500 Goodyear workers rejected a management scheme to cut losses by revising working practices. The management had threatened closure if

they rejected the plan. Redun-dancies would have been limited

to 57 in the company's propo-

tish tyre plant.

THE LEGAL tangles surround- double the amount of shares in held by Dunwoody tally to some degree with records held by Mr. Richardson, but difficulties have arisen about those who have been offered shares in pay-ment for services given to Mr.

> It seems likely that Dunwoody will be able to go back to the Supreme Court in Bermuda next month with a partial list of potential share-holders agreed with Mr. Richardson and the present Hemerdon management but that the court itself will have to rule on contested claims, including that of Mr. Richard-

> If the issue of share owner-ship is settled the company can press ahead with plans for over-the-counter trading of its shares in the U.S. This will open the way to raising new finance if there should be a decision to exploit Hemerdon

The company's immediate financial problems over investigation of the deposit were eliminated when its joint venture agreement was signed with Amax, which is shouldering the costs of drilling, metallurgical testing and economic feasibility

Any decision on mine development in the early 1980s would involve Hemerdon in finding funds for capital invest-ment, if it is to maintain a 50 per cent interest in the

Verdict tomorrow on

two Clydeside plants

THE FATE of Marathon Ship- Corporation has been negotiat-

### **Planners** agree CBI's Centre Point plan

THE Confederation of British industry has cleared one of the hurdles it was facing in its attempt to take over London's Centre Point office block as its headquarters.

The planning committee of Camden Council approved the CBI's application to convert the block's showrooms into a council chamber: Without this approval, which has to be ratified by the full council, the CBI would have abandoned its interest.

It is, however, still not cer-tain that the CBI will occupy Centre Point, which has been virtually empty since it was built in 1965. This is because publicity given in December to the CBI's interest has led to other buildings being brought to

its notice.

The developers of a building in the Vauxhall Bridge Road. also a possible future home for the CBI for many years, are believed to be considering new initiatives.

Nevertheless, Centre Point remains the front runner. Providing no snags emerge, the CBI will now have to decide whether it considers it is worth spending some £2.5m on converting the bottom half of the 30-storey office block to its

# Yuki weaves link with Rivington Reed

BY RHYS DAVID, TEXTILES CORRESPONDENT

YUKI, the Japanese fashion designer based in London, is together Rivington Reed Lancashire textile group headed by Dr. Blackburn, in a Blackhurn in a link-up which could have an impact

on British fashion fabrics.

The move, which is certain to cause considerable interest in the textile industry, goes beyond the conventional licensing agreement under which designers produce ranges which are then marketed under their name. Rivington Reed is acquiring a controlling interest in a new company. Yuki, which becomes an associate company publishing all Yuki designs.

The arrangement is something of a coup for Dr. Blackburn, who has developed a reputation in the textile industry for his marketing skills. Before joining Wm. Reed, as it was two years ago, he held senior board positions with Vantona and previously with Carrington Vivella, where he was one of the pioneers of the colour and design revolu-

The deal will therefore unite scheme. marketing and design skills, indeed to the UK textile trade balance.

which includes Barbra Margaret Streisand and Thatcher among its clients. will obtain organisational and financial backing to develop further its existing design business.

could therefore advance from being an admired concern in the world of high fashion to a position alongside the household names of textile design such as Mary Quant and Hardy Amies.

The intention is that Yuki, who would himself act as managing director with Dr. Blackburn as chairman, should operate in three main Blackburn as They are haute where Yuki has established a reputation for lavish use of very fine denier women's wear fabrics; readyto-wear, an area where Rivington Reed believes it can help Yuki expand: and non-apparel areas, where it is hoped to build up new business.

Dr. Blackburn said yesterday that Yuki would remain an independent company, free to enter into licensing agreements with other companies. although with some limitations if there was a conflict with work being done for Rivington Reed.

Besides giving Yuki the chance the UK.

to develop into new fields. The link with Yuki is meant firm indication of Dr. Blackburn's own ambitions for his

group. When he arrived, much of its business was tied up with the declining men's suit trade, as one of the leading suppliers of woven filament fabric linings to the

big made-to-measure groups. Dr. Blackburn took the carpet industry by surprise soon after arriving by acquiring from the Receiver the Rivington subsidiary of Bond Worth and he has since moved further into the carpet industry despite the problems of over-capacity, with further acquisitions in Ireland and

primarily to fit in with moves Rivington Reed has been mak-ing to involve itself more deeply in fashion fabrics, in particular the more expensive ranges which UK garment makers are having to buy from the Continent.

The group has moved into the manufacture of velvet through Dendle Fabrics and is using its expertise in the linkng field to expand into manu-facture of very fine woven textured polyester, a fabric now in strong demand

Dr. Blackburn said he was hop-ing that Yuki, who is now British, but was trained as a textile engineer in the U.S. and Japan, would be bringing out ranges soon in Rivington Reed's velvet and in woven textured polyester.

# Loans spur machine tool growth

BY HAZEL DUFFY, INDUSTRIAL CORRESPONDENT

THE FINAL tally of aid offered by the Government to the machine tool industry is £35.8m. Investment by the industry is to taken up, against an allocation which has overtaken Investment by the industry is household textiles such as expected to have increased substantially as a result of the

If all the projects on which and if it proves successful it aid has been offered were to could bring considerable materialise, the total investment advantages to both sides, and by the industry with the help By joining a bigger group Yuki,

tion by Government of £30m.

Alfred Herbert will be the biggest beneficiary from the scheme, with more than £4m by the industry with the help of Government will be nearly aid offered. Other companies £176m. In practice, some projects are expected to be dropped include Wickman (part of the aid offered. Other companies ings, machinery and product £14m has been offered towards receiving substantial amounts development.

of which 123 were rejected or were withdrawn by the com-

The scheme, considered to be one of the most successful for aid to industry, was designed to promote investment in build-

machinery and product development have proved the most attractive aspects of the scheme. new machinery will total nearly £18m, resulting in investment of Companies seeking to rational- totalling £58m.

# You can still afford to stand out from the crowd.



For practically the same price as the ordinary common or garden saloons crowding Britain's roads, you can buy a family car that is every inch a Lancia.

The Lancia Beta Saloon is a car of distinctive, individual lines, great comfort and high

building, of Clydebank, and Goodyear Tyres, of Drum-chapel, both U.S.-owned, will probably be decided tomorrow. Both plants risk closure with the loss of nearly 2,200 jobs. £500,000 more.
Marathon employs 1.100
workers and has only a few
weeks' work left In the true spirit of Lancia, it has a twin overhead cam engine and a 5 speed all synchromesh gearbox to make you feel you're Mr. Millan wants the Marathon yard to remain open, but

is unlikely to be able to increase the offer because of Treasury opposition and the danger of infringing interna-

body. They're also covered in a luxurious new cloth fabric that feels as soft as wool. This same fabric has been lavishly used throughout to line the doors, pillars and roof. Behind, there's 18 cubic feet of boot space to comfortably take

care of your luggage.
There's a full complement of instruments, including an electronic rev counter, an independently controlled heating and really driving the car.

Inside, there's head and leg room to take five people in extreme comfort. The seats are well precise handling and road-holding.

ventilation system for passengers in the rear and Lancia's renowned front wheel drive for precise handling and road-holding.

upholstered and contoured to the shape of your Finally, for everyone's safety there are Lancia's own servo-assisted Super-duplex dual system disc brakes on all four wheels. And, for your peace of mind, there's anti-corrosion treatment on the entire body. Before you pay out a penny on a car, test drive the Beta Saloon at your

It will convince you that you're driving one of the few bargains left on four wheels.

## LANCIA. The most Italian car.

Lancia (England) Ltd., Alperton, Middlesex Tel 01-998 5355 (24 hour sales enquiry service)

The Beta Saloon Range: Beta 2000-24,559.49 Beta 2000ES-24,954.95 Beta 1600-24,268.16 (Illustrated) Beta 1300-23,563.82

Prices include VAT at 8% and cartax, inertia reel seat belts and delivery charges on UK mainland, but exclude number plates. Personal Export: If you are eligible to purchase a Lancia free of taxes, contact our Export Department.

# Lamb imports put into store as price drops

FINANCIAL TIMES REPORTER

supplies of lamb available in Britain by putting large quantities into store, in an attempt to stop prices falling.

The lorry drivers' strike in January has resulted in large supplies of New Zealand lamb building up just at a time when new-season shipments start coming in. The prospect of an influx of supplies has pushed prices down sharply and already lowered the return to New Zealand farmers.

A spokesman for the New Zealand Meat Producers Board in London confirmed yesterday that meat exporters in New Zealand had been asked to arrange for an extra quantity of lamb shipments to be put into store in Britain. He said that talks were going

on with the meat trade in Britain on ways to stabilise the decline in prices.

It is reckoned that about 10,000 tonnes of New Zealand lamb may be put into storage out of the 25 to 30,000 tonnes shipped to the UK this month. New Zealand is understood to fear that if its lamb prices fall

NEW ZEALAND is to reduce repercussions from continental members of the European Community.

tional agreements on the level of state aid to commercial

Mr. Jimmy Reid, outfitting convener at Marathon, said last week that it was scandalous that negotiations had been

broken off over such a paltry

manufacturers.

rejected the plan. Redun-s would have been limited in the company's propo-the price gap between the Corporation's offer and what British National Oil Marathon is prepared to accept.

### Mirror shelves Glasgow plans

By Ray Perman, Scottish Correspondent

MIRROR GROUP, the Reed International publishing sub-sidiary, has shelved plans to start a new evening newspaper

in Glasgow.

Preparations were well advanced. The title, PM, had provisionally been chosen and dummy editions had been

But Mirror and Reed execu-tives have decided that the project should be put off at

Sunday newspapers from Glasgow. The city's only evening paper is the Evening Times, published by George Outram, a subsidiary of Scottish and

BY LYNTON MOLAIN

THE EUROPEAN Commission has awarded Coopers and Lybrand Associates a contract to study proposals for a road and rail link between Britain and

A variety of proposals will be examined, including the British Rail plan for a £650m single bore rail tunnel under the

Other proposals expected to be studied include a combined road community of rail tunnel which would surface ture projects.

least until the autumn.

Mirror Group already publishes successful morning and

# Coopers and Lybrand to probe Channel plans

at suitable points near sand banks. Bridges will also be studied but the company will be concerned more with revising earlier traffic flow estimates, than with engineering cost

> The study is to be under taken to illustrate an EEC Commission study, part of which is also being carried out by the company, on how best to measure the benefits to the Community of major infrastruc-

evaluations.



Railway

drivers'

TRAIN DRIVERS in two of

Southern Region's three divi-sions yesterday called off their unofficial one-day strike on Wednesday which would also have affected London's Under-

The decision to postpone any unofficial action until

after March 18 was taken by local officials of ASLEF, the train drivers' union, repre-

senting depots in the south-eastern and central divisions.

Leaders of drivers in the south-western division, cover-

ing services to and from

Waterloo meet today to vote

Mr. Ray Buckton, the union's general secretary, last week appealed to the men to

threat

lifted

ground services.

### International Exhibition "CONSUMER and FASHIONS"

**USSR, Moscow** 

June 28 — July 8, 1979

# Hospital and council staff may have similar deals

BY NICK GARNETT, LABOUR STAFF

authority manual workers in the following April. next few days is now seen by national union officials as a way out of both the hospital ancillary and ambulance men's disputes.

Council employers and union representatives meet Mr. Peter but with no recommendation.

Shore, the Environment Secre- The Government propos tary tonight to discuss a self- that the Standing Commission financing productivity deal to which would make a comparagive a modest topping-up above bility study of local authority the 9 per cent offer on Friday. pay would be used for other Both sides meet again, public services.

possibly on Wednesday, for further discussions on productivity if today's meeting makes

reasonable headway. A large number of employers are doubtful if a productivity deal could be accurately gauged in terms of self-funding, but the unions believe a self-financing bility study, the 9 per cent offer deal based on increased flexi- would almost certainly be bility and improved efficiency can be devised immediately in

Union leaders are prepared to recommend the 9 per cent provided agreement is reached on productivity. If it is not reached, the offer is still likely to go out to the membership,

The Government proposes

privately that they will also be offered 9 per cent. If a productivity deal can be worked out for these groups, with the promise of a compara-

recommended for acceptance.

It is unclear if that recomdouble figures.

The local authority manuals health service workers. A have also been offered a pay national conference of comparability study which holds

A PAY OFFER similar to that out the possibility of more at which there may be some which may be reached for local money in August and in the indication on this point, meets indication on this point, meets

tomorrow. Further pay talks in the health service are expected

within the next week. A national conference of Transport and General Workers' Union delegates representing water industry workers at the weekend accepted a deal worth

This follows a similar decision by members of the General and Municipal Workers' Union. The decision by members of the National Union of Public Employees will be known next

16 per cent.

Monday. Mr. Frank Chapple, general secretary of the Electrical and Plumbing Trades Union, said yesterday that the activities of some pickets involved in the local authority dispute were no better than those of terrorists.

Paying particular groups of vorkers sizeable increases workers simply because they received so little would be disastrous for

week appealed to the men to suspend industrial action while an independent tribunal prepared its report on a national drivers' claim for a 10 per cent special responsibility payment.

Some union and British Rail officials are doubtful that the tribunal, whose hearing has now ended, can find new ground on which a solution acceptable to all sides could be based.

### Bid to prevent **Dunlop** closure

By Our Labour Staff. PROPOSALS to prevent the closure of Dunlop's Speke plant on Merseyside are likely to be drawn up today at a special

It will involve Mr. John Miller, Transport and General Workers' Union national secretary and national and local representatives of all unions at Dunlop. The idea is to resist threatened redundancies at two of the company's other plants. Last week Mr. Miller and Mr. Moss Evans, the Transport Workers' general secretary, met Mr. John Smith, Secretary for Trade, about the problems caused by cheap European tyre

Dunlop has blamed cheap imports and low productivity for the Speke closure, involving the less of about 2,400 jobs. Dunlop plans cuts at its Birmingham and Scottish plants with the loss of a further 750 jobs.

# Civil Service pay unit findings to aid industrial worker's deal

BY PHILIP BASSETT, LABOUR STAFF

who caused political embarrassment in their pay campaign last limit, year by blacking three of Ind submarines, will base negotia-tions for their July settlement tions for their July settlement of a staged deal, as crucial to on pay comparisons made by the white-collar Civil Service's pay of a comparability settlement for this year's deal was central

A settlement due in April for the 600,000 white-collar civil unit's findings, which show rises due of 26-36 per cent for middle-ranking grades. Progress is being examined by union officials representing the 182,000 industrial workers.

are expected about May, but union officials are confident that comparisons with outside industry must show rises due of between 15 and 30 per cent.

Officials representing white and blue-collar civil servants have been regularly meeting jointly to chart the progress of the white-collar personnel's fight to win full implementation of

INDUSTRIAL civil servants, the unit's findings, in spite of building, marine engineering the Government's 5 per cent

Industrial workers regard nuclear the outcome of the white-collar negotia- negotiations, including the offer to last year's Government's agreement with the unions on servants will be based on the a 10 per cent deal to prevent repetition of embarrassing industrial action.

Last year, action included one-day strikes at naval dockyards and stoppages by House of Commons and Whitehall Full results of a separate drivers, messengers and other survey for the industrial workers staff. The submarine's blacking

had to be broken by the Navy. The Civil Service Department

The unit is drawing up its report on an agreed list of companies after visiting com-parable jobs in oil and chemical engineering, shipconstruction, transport and distribution.

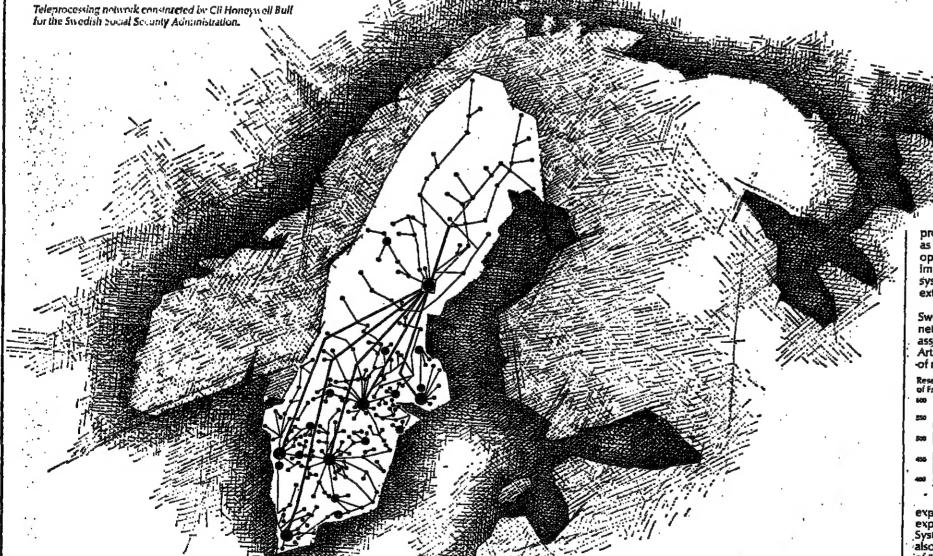
It is examining basic rates. overtime, holiday, shift and sick pay, productivity pay-ments and the conditions to be met for productivity schemes, piecework, measured day work and other factors.

### **Journalists** told to quit rented flats

JOURNALISTS SACKED by the Nottingham Evening Post have been told to quit their rented homes within 28 days.

The Post sacked 28 National has provided the pay research unit with extra resources to deal with the industrial workers' comparability study. from the company.

The ultimatum came in solicitors' letters on behalf of T. Bailey Foreman, owners of



# The future is data processing networks. We have experience of them.

We are seeing, and will continue to witness in coming years, the growing decentralization of data processing resources. This decentralized, distributed processing leads naturally to teleprocessing networks: the user, remote from the computer, gains access to the organization's data and its processing resources through increasingly varied and appropriate

### Three-way competence.

Teleprocessing networks represent one of the main axes of tomorrow's data processing. Their design and construction demand, as of now, expertise in three allied domains: advanced technologies, systems organization, and network architecture. At Cii Honeywell Bull we have

been orienting our research towards future network developments for a long time. We understood early on that it was necessary to explore all advanced technologies - the only possible way to stay in front of the nternational competition.

### Worldwide number 2 in data processing research.

By reason of the technical coordination agreements which link them, Cii Honeywell Bull and Honeywell Information Systems Inc., rank number 2 worldwide in data processing research.

Each year we devote more than 10% of consolidated revenue to research and development. Each year we file about 150 patents. Today, Cii Honeywell Bull is a leader in computer technologies. We have taken a considerable lead in the microelectronic assembly technologies (micropackaging) which make it possible to fully exploit the advantages of highly-integrated circuits.

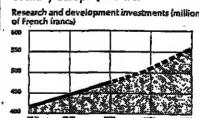
Half of our research investments

are, in fact, devoted to the development of software. In consequence, Cii Honeywell Bull is able to offer operating systems which are perfectly adapted to the specific needs of users. We are developing highly-evolved languages of the SIL type (System Implementation Language), on behalf of the United States Department of Defense, for example.

### Systems architects.

We are, as J.P. Brule, Chairman of Cii Honeywell Bull, recently said, "data processing systems architects." This is as true for hardware/software optimization as, for the design and implementation of teleprocessing systems. Our expertise in this extremely advanced field is proven. We have, for example, built the

Swedish Social Security Administration's network, and that of the French assurance group, Mutuelle d'Assurance Artisanale de France, and the networks -of many European banks.



We are convinced that, today, expertise in data processing means expertise in teleprocessing networks. System and network architectures are also a perfect illustration of our concept of "creative data processing": placing a practical, flexible and easy to use tool at the disposal of people and organizations to enable them to get the maximum benefits from their innovative and productive capacities.

### Our growth, in figures.

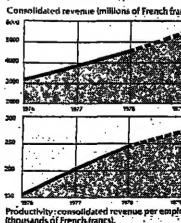
Cii Honeywell Bull's research and development policy, which guarantees its competitiveness in the international data processing market, has been rewarded by continued, balanced

At the financial level, our consolidated revenue increases by an average of 15% a year. Fifty-three per cent of consolidated revenue is earned outside our headquarters country, France, clearly demonstrating our success in international markets - an index of competitiveness.

Our productivity per employee puts Cii Honeywell Bull in the first rank of data processing system manufacturers on a worldwide basis. Our net profit continues to grow, as does our cash flow (16.8% of consolidated revenue in 1976, 17.4% in 1977). And our debt'equity ratio of less than 1 (at the end of 1978) confirms the solidity of our balance sheet and provides us with the means for growth.

### Continual expansion worldwide.

At the marketing level, Cit Honeywell Bull is present now in 32 countries and its products are found in 67 countries on five continents. Our business, which originated in Europe, has spread to the rapidly growing countries of South America, Africa and Asia. It is developing in the USSR, India and the People's Republic of China. countries which are among our priorities for market expansion. olidated revenue (millions of French francs)



Furthermore, our association with Honeywell Information Systems Inc. gives us access to the American market the biggest and toughest in the world. The international success of our Level 64 systems is a significant case in point: out of nearly 1,500 orders for these systems to date, representing 18 million dollars in rental revenue per month. nearly a third came from the United

We have set ourselves the objective of being amongt the foremost worldwide in data processing by taking advantage of all the possibilities offered by a growing market. Ambitious, this may be; but it is also realistic. With its considerable financial, industrial and marketing resources, Cii Honevwell Bull has the means to do it



Cii Honeywell Bull.

**Creative Data Processing** 

Financial Times Monday February 19 1979 FT SURVEY OF CONSUMER CONFIDENCE

# Support grows for wages freeze to beat inflation

BY DAVID CHURCHILL, CONSUMER AFFAIRS CORRESPONDENT

SUBSTANTIAL support for a wages freeze as a way of avoiding a return to a high level of inflation is disclosed in the Financial Times survey of conconfidence published sumer

The survey shows 46 per cent of consumers believe that the Government should impose a wages freeze, with 39 per cent against the idea, and 15 per cent undecided.

Most support for the idea of a wage freeze came from people aged 55 and above, as well as the majority of women. Less support came from men and from people aged between 35 and 54, although at least four out of every ten from each group favoured a freeze.

There was little regional variation in support for a freeze, apart from London and the South where the majority in favour was the lowest at 4

has improved slightly in to minus 16 per cent. February, its first significant Consumers' concern increase since last August. How-ever, the index is still well below its normal level for the past two years and only one in six of consumers surveyed expects an improvement in conditions over the next year.

The survey shows that while 16 per cent of consumers expect conditions to improve, some 38 per cent believe they will worsen. This gives an index of minus 22 per cent, compared with minus 27, per cent last

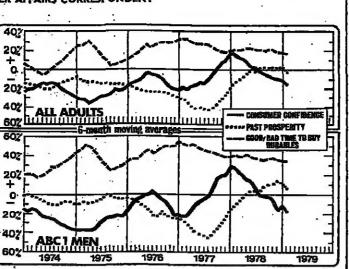
### **Pessimists**

However, this slight improvement appears to be based mainly on the belief that the economic and industrial situation cannot get any worse. An increasing proportion are more hopeful for the future because of an expected change of government.

The pessimists in the survey, who are in the majority, mainly cite concern over the unions and strikes as the cause oftheir lack of future confidence. Pessimism over rising prices AN AUCTION record price for collection, assembly in the last shows an 8 per cent rise, indicating concern over present levels of wage settlements.

Professional and executive men, from the ABC1 social classification, do not share the slight improvement in future confidence, although women from the classification show the greatest rise in confidence.

According to age, the improvemen in confidence has come The spider's web leaded glass New York maker to new almost entirely from the 35-54 lamp came from the Glick heights.



Consumers' concern over the present situation has led to a sharp drop in the feeling that people are better off than they were a year ago. Some 22 per cent of the survey felt better off than a year ago, while 39 per cent felt worse off. This gives an index of minus 17 per cent, compared to plus 1 per cent last month. The index of past prosperity is now at its lowest since November 1977 and only once previously—in July 1973 has the index changed more rapidly in a single month.

After four months at plus 2 is down 4 per cent to minus 2

The "time to buy big things for the house" section of the

age group, although the under 34's still remain the most optimistic of the age groups. survey shows a slight fall this month, but not as great as usually following the January in favour was the lowest at 4 mistic of the age groups.

After last month's sharp rise in pessimism among the survey, the index of future confidence the improved of interest of the six-monthly index to buy consumer durables, while the index of future confidence which falls a further 4 per cent to buy consumer durables, while the improved of the six-monthly index to buy consumer durables, while the improved of the six-monthly index to buy consumer durables, while the six-monthly index to buy consumer durables, while the six-monthly index to buy consumer durables, while the age groups.

The slight improvement in the sales, Some 44 per cent to buy consumer durables, while the age groups.

The slight improvement in the sales, Some 44 per cent to buy consumer durables, while the age groups.

The slight improvement in the survey felt now was a good time to buy consumer durables, while the six-monthly index to buy consumer durables, while the six-monthly inde

positive index of 17 per cent. A clear gap on buying inten-tions new exists between the ABC1 social group and the C2DE manual worker group, with the latter much less likely to buy

The unemployment index has risen to its highest for three years, with 43 per cent expecting unemployment to worsen and 11 per cent that it will improve, giving an index 11 per cent higher than last month a plus 32 per cent.

The increase is marked in all regions except London and the

The survey was carried out by per cent, the six-monthly index the British Market Research Bureau for the Financial Times between February 1 and 7. A sample of 1,070 adults were interviewed.

### SALEROOM

### Tiffany lamp: £75.000

BY ANTONY THORNCROFT

a Tiffany lamp of £75,000 was 20 years. Another very rare paid at Christie's in New York lamp of the spider's web on Saturday in the most success- era sold fer £62,500, while on Saturday in the most successful sale yet of works of art there was an auction record for nouveau.

The price was more than Tiffany lamp. The auction totalled £584,757, way above the highest pre-sale estimate.

a wisteria leaded lamp of £60,000.

Another record was twice the previous best for a £9.500 for a Tiffany vase. Only one of the 90 lots was unsold in an auction which lifts prices of items from the celebrated

# LI YUUK BUJINEJI NDUSTRIAL CUMBRIA



Come to Combria where there is mountor your business to grow. healt factories at low rentals (with a possible 5-year free period). There are maximum Regional Development grants from the Government and you will be entitled to a 100 per cent first year tax relief on new machinery and plant. The whole of umbria is of course designated as a Development Area or a special Development Area Some of the best leading British and International reading British and the advantage companies have seen the advantage of coming to Combrid and are dready well established here. They include such household names as Courtaulds, h Shoes, Leyland National, Metal Pay, Glaso, Nestle, Pirelli, Rowntree Vickens of and Bowater Scott just

There are well laid out industrial estates in many parts of the county with factories from 5 000 to 25 (88)sq. feet ready and waiting

People in Combria believe in petting on with the job and that's why we have one of the lowest strike records in Entain. We have people reach and willing to take on new

Remember, if you come to Combination will be fromg and working only minutes away from the Lake District National Park, among the linest scenery in Britain Just another plus for Cumbria.

Lor forther details please contact: Rob Childes, Industrial Promotion Officer, Combria County Council,

Tylephone Carlole (0228) 23456

Carlisle, Combria.



### WEEK'S FINANCIAL DIARY

The following is a record of the principal business and financial engagements during the week, The Board meetings are mainly for the purpose of considering dividends and official indications are not always available whether dividends concerned are interims or finals. The sub-divisions shown below are based mainly on last year's timetable.

Midland Bank Floating Rate Cap. 1983 7-upt Orford 7-upt Bds. Red. (21)279) £4.067 Poole 7-upt Bds. Red. (21)7779) £4.067 Redslitch 7-upt Bds. Red. (21).279) £4.067 Salderd 7-upt Bds. Red. (21).279) £4.067 Saethorne 7-upt Bds. Red. (21).279) £4.067 Ed. £1.279) £4.067 14.057 Strathkelvin 7 apc Bds. Red. (21/2,79) TraBord 7 apc Bds. Red. (21:279) 54.067 Trascury 10pc 1992 5pc Warrington 7 bpt Bds Red. (21:279) 54.067 W. Yorkshire 7 W. Yorkshire 7 and Bds. Reg. (21,2,79)

TOMORROW

COMPANY MEETINGS—
Byrco Dean, Great Eastern Hotel, EC. 12
Crest Intol. Secs., 325, City Road, EC. 12
Record Ridgway. Cutlers' Hall, Church
Street, Shefield, 12,30
Reo Stakis Org., Normandy Hotel,
Inchinana Road, Renfrew, 3
Trident Ty. Dorchester Hotel, Park Lane,
W, 11,30
BOARD MEETINGS—
Figure:
Crest Nikolian

RnightStridge, SW, 12.30
vr's Footherlies and Eng., Colomba Street,
Jerby, 12
ctorquodale, McCorquodale House,
lefterd Rose, Bastingstoke, 12.45
BOARD MEETINGSPristords, Carrington Vivella, Foreign and
Col. Inv., TAC. U.S. Deb, Cpn. Weper
Holds, Yeoman kov. Tst.
Institutions

E4.057 Centireway 9.7429 Dover 12 spr. Bds. Red. (21:2/79) 51690 Exchequer 3pc 1981 1:50. Do. 3pc 1983 1:50. Do 10:50 1997 5:50 Galesheed 7:spc Bds. Red. (21:2/79) £4.057 54.057 High Peak 7 spc Eds. Reg. (21/2/79) 54.057 Maclesheld 7 spc Eds. Red. (21/2/79) 54.057 Finals: Carllol inv. Tst. Liden Hidas. Tynoside inv. Tst.

Crown House 1.53p Croydon 9/4c Cgs. Red. (29 8 79) £4.8750 Cunningname 9/4ct Eds. Red. (29/8/79) £4 8750 Danae Inv. Tst. 1.5p Distillers 9 Dencester 94cc Eds. Red. (29 8 79) £4.3750 ingus.

de Intulators. Anglo Intol. Inv. Tst.
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irton. Olives Paper Mill. os. Commi. Bk. Aust. Douglas Nati. Carbonising, Stocks (J.).

lav. Tst.
MPANY MEETINGS—

A Profile. Winchester Hause, 100,
Broad Street, EC. 1;

MPArk Inds., Midland Hotel, Peter chester, 12 Cy Road, King's Lynn, Nor-11.30 Hidgs., Empire House, 123, Ken-ph Road, SE, 11 an annue, Winchester House, 100. nn Road, SE. 11 uarantee. Winchester House. 100. Iroad Street. EC. 12 Thomas W.I, Royal Victoria Hotel. heifield. 3 OIVHDEND & INTEREST PAYMENTS— Ileys of Yorkshire 1.10 Benau Gwent 10 apc Bds. Red. (17/2:82) Sth. Beds. 94pc Bds. Red. (29,8:79) £4,6750

Ver. Rate Bds. Red. (16 2/83) Radnor Var. Rato Eds Red. (16:2:83) 65.0563 5th. Herts. Var. Rato Eds. Red. (17:2:22) 65.0563 wn Var. Rate Bds. Red. (16/2-83)

Victoria Carpet 0.5n. 10 cts.

FRIDAY, FEBRUARY 23

COMPANY MEETINGS—
Brooke 5001 Eng., Great Eastern Hotel.

Carpet 152., Finsbury Pavement, EC.

Lowe (Robert H.), Roldane Mills

ton, Cheshire, 12

Baker Intml. 11 cts, 12/18/79) £4.8750
Barnet 9Apr Box. Red. (29/8/79) £4.8750
Burnley Var. Rate Box. (17.8/83) £5.275
Caplen Profile 3.8480
Carlele 9Apr. Bdx. Red. (29/8/79) £4.8750.
DD. 9Apr. Bdx. (Red. (29/8/79) £4.8750.
Charterhouse Gra. 2.24050
Coventry 13/spc Bdx. Red. (17.7/82) 6Apr.
Crawley 9 and Bdx. Red. (29/8/79) £4.8750
Crown House 1.58p

4.8750 Tmiaster 1.541p Mpton Gold Mag, Areas 1.5p TtS 94pc Eds. Red. (29 879) 51.8750 Adburn 94pc Bos. Red. (29 8.79) 4.8750 Herts Hyndburn 9 inc Bds. 199 E4.8750 Handburn 19 inc Bds. 1.9p Hira Rubber Plantations 1.9p Kington upon Hull 9 ipc Bds. Red. (28:5.79) £4.8750 185.0,(7) 2610/30 (rkless 9 upc 8ds. Red. (29 8.79) £4.8750 Lee (Arthur: 1.19 Lichteld 9 upc 8ds. Red. (29/8,78: £4.8750 Merril Lynch 22 cts. Merseyside 92pc Mds. Red. (29/8/79)

/ellingborgogn 5 pp. 24.8750 £4.8750 /. Yorkshire 94pc Bds. Red. (298.79)

SATURDAY, FEBRUARY 24
DIVIDEND & INTEREST PAYMENTS—
free Ln. 3pt
eres. 7.pc Red. 1978-79 3'spc
laceau Gwent 11pc Bds Red. (20:880) eckland 12 lepc Eds. Red. (18/8,82) ton anu (1 2.28 79) 41 apr (1 2.28 79)

4": IDP SUNDAY. FEBRUARY 25 OLVICEND 4: INTEREST PAYMENTS— P. Redemption 60:2854. 1978-87 at 102ec achequer 121.pc 1992 61.pc rocivie; Proprietary Mines 12.82122p

# **Parliamentary Diary**

TODAY

COMMONS: Debate on first report of Procedure Committee 1977-78 with 1st to 8th reports of Procedure Committee 1976-

LORDS: Private Bills. Kiribati Independence Bill, second reading. Nurses, Midwives and Health Visitors Bill, second reading.

TOMORROW

COMMONS: Continuation of Monday's debate. LORDS: Films Bill, committee stage, Legal Aid Bill, committee stage. National Land Fund Bill, committee stage. Public Lending Right Bill. committee stage. Ancient Monuments and Archaeological Areas Bill, committee stage. Short debate on treaty on strategic arms limitation.

SELECT COMMITTEES: Nationalised Industries, Subcommittee A. Subject: British Waterways Board. Witness: Mr. Peter Shore. Environment Sec. Room 8, 4 pm.

WEDNESDAY

COMMONS: Northern Ireland Orders on rates amendment and judgments enforcement Lords consolidation measures. Motion on EEC documents on Community Budget. LORDS: Short debate on inter-

national parliamentary confer-ence on population. Short debate on UN special assembly on disarmament. Criminal Evidence Bill, third reading.

SELECT COMMITTEES: Nationalised Industries. Subcommittee B. Subject: Report and Accounts of Electricity Council, Witnesses: Electricity Council. Room 8, 10.45 am. Science and Technology, Genetic Engineering Sub-committee. Subject: Genetic Engineering. COMM Witnesses: Association of Uni-Bills.

versity Teachers. Room 15, 10 am. Expenditure, Environment Sub-committee, Subject: Re-development of London's Dock-lands. Witnesses: Bernard Thorpe and Partners, Nigel Spearing, MP. Room 5, 4.15 pm. Nationalised Industries, Sub-committee E. Subject: Ministers, Parliament and the Nationalised Industries. Witnesses: Nationalised Industries' Chairmen's Group, Room 8, 4 pm. Expenditure. Trade and Industry Sub-committee. Subject: UK domestic air fares. Witnesses: British Midland Airways, British Caledonian Airways. Room 16, 10.15 am. Expenditure, Social Services and Employment Subcommittee. Subject: Perinatal and neonatal mortality. Witnesses: Health Visitors' Associa-Obstetric Anaesthetists Association, Room 6, 4.30 pm. Public Accounts committee. Subject: Appropriation accounts. Witnesses: Ministry of Agricul-ture, Intervention Board for Agricultural Produce. Room 16,

THURSDAY

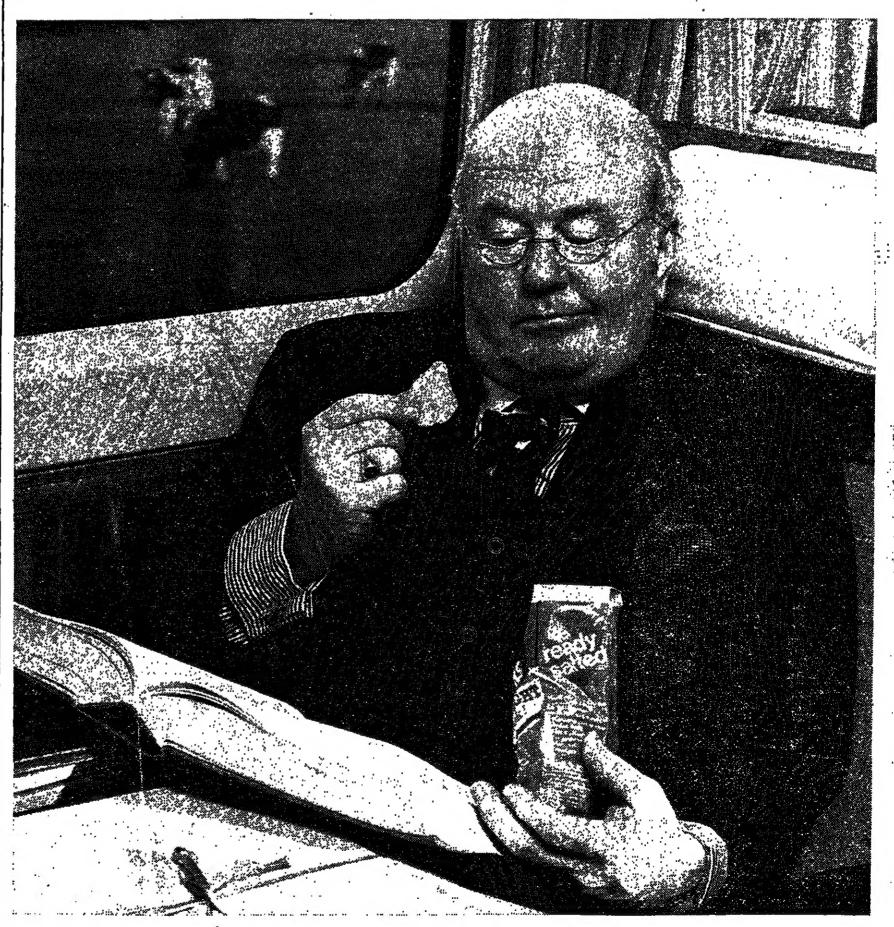
4.45 pm.

COMMONS: Debate on White Paper on review of Mental Health Act.

LORDS: (Commencing II am) Films Bill, third reading, Social Security Bill, committee, House of Commons (Redistribution of Seats) Bill, committee, Motion on European Communities (Definition of Treaties) (ECSC decision on supplementary Revenues) Order, Rates Amendment (NI) Order, Conservation of Wild Creatures and Wild (Amendment) Bill, Legal Aid Bill, third report. reading. Short debate on London airports.

FRIDAY

COMMONS: Private Members'



# What you do on the train is your business.

The train gets you to your business appointments quickly and dependably. It also has some appointments to help you in your business life.

Many Inter-City trains have full air-conditioning with adjustable seats, so that you can sit back and mull over a business idea.

An expanse of desk for spreading out papers. With an individual light for reading. There's also a washroom where you can spruce up, ready to meet your

It sounds rather like your office, doesn't it?

Indeed, if your office is famous for its breakfasts and can also travel at speeds up to 125mph, there may be remarkably few practical differences between it and the train.



# Iconical Page

### ENERGY

# **Doubles the power** from the sun

netics Department, a simple times as much as would strike way of extracting twice as much a conventional unit of the same size, with the sun at its best heat from a solar panel of given area could give this method of obtaining "free" energy from April to August, something like the environment an enormous

panel is mounted horizontally instead of being flush with the roof. Behind it and below it are two mirrors—simple sheets of aluminium foil.

being considered by Solar Economy, Balksbury Hill, Upper Clatford, Andover.

f aluminium foil. Upper Clatford, The upper side of the plate Hants. 0264 51523. is illuminated directly and by

FRUIT OF a student project at Reading University's Cyber- the collector is almost three

double the energy is available. It is suggested that the struc-In the design, which has won a £200 prize at the Energy Show at the NEC in Birmingham, the conventional flat solar collecting selves be enclosed in plastic sheeting to cut heat losses. Commercial development is

Further details on the prothe beams reflected from the ject from Dr. G. R. Whitfield, vertical mirror. The underside Department of Cybernetics, is illuminated by single- and University of Reading, 3 Earley double-reflected beams from Gate, Whiteknights, Reading horizontal and vertical planes. RG6 2AL. 0734 85123.

### COMMUNICATIONS Projecting an image

or a television monitor with (0734 790415).

IMAGES FROM 35-mm slide. Of interest to hotel groups, 16mm cine and overhead projectors can be thrown at will ments, the unit can occupy as on to a back projection screen. Little as 33 in of room depth GRESEARCH video recorder can be brought in a width of 104 in and so can be economically mounted at the into action in the Compak pre-fabricated system from JMC front of a conference room.



Description

Telephone

0902 42541/2/3 Telex 336414

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Telex 336414

ROLLING MILLS 5in x 12in x 10in wide variable speed Four High Mill.
3.5in x 8in x 9in wide variable speed

10in x 16in wide fixed speed Two High Mill.
6in x 16in x 20in wide Four High Mill.
20in x 30in x 350 H/P Two High Reversing Mill.
10in x 12in wide fixed speed Two High Mill.
17in x 30in wide fixed speed Two High Mill.
1970 CUT-TO-LENGTH max. capacity

1,000 mm 2 mm x 7 tonnes coil fully overhauled and in excellent condition. STRIP FLATTEN AND CUT-TO-LENGTH LINE by A.R.M. Max. capacity 750 mm x 3 mm. FARMER NORTON 18in WIDE CUT-TO-LENGTH LINE. Max. capacity 15in x 10 s.w.g. RWF TW-STAND WIRE FLATTENING AND

STRIP ROLLING LINE, 10in x 8in rolls x 75 hp per roll stand. Complete with edging rolls, turk'n head, flaking and fixed recoiler, air gauging, etc. Variable line speed, 0/750 ft/min and 0/1,500 ft/min. SLITTING LINES (2) 300 mm and 500 mm

BAR AND TUBE REELING & STRAIGHTENING MACHINE by Platt. Max. capacity 2in Bar 2.50in tube.

8 BLOCK (400 mm) IN LINE, NON-SLIP WIRE DRAWING machine in excellent condition. 0/2,000 ft/min variable speed, 10 h.p. per

24in DIAMETER HORIZONTAL BULL BLOCK by Farmer Norton.

PACEMAKER SIX BLOCK (22in x 25 h.p.)

variable speed Wire Drawing Machine by
Marshall Richards.

2 15 Die MS4 WIRE DRAWING MACHINES, 5,000 ft/min with spoolers by Marshall

9 DIE 1.750 ft/min SLIP TYPE ROD DRAWING MACHINE equipped with 3 speed 200 h.p. drive 20in. Horizontal Draw Blocks 22in Vertical Collecting Block and 1,000 lb Spooler. (Max. inlet 9 mm finishing down to 1.6 mm copper and aluminium).

7 and 9 ROLL FLATTENING & LEVELLING MACHINES, 20in, 26in & 72in wide. HYDRAULIC SCRAP BALING PRESS by Fielding and Platt, 85 ton main ram

TYPE 10004R CINCINNATI PLATE SHEAR, max. capacity 1,250 mm x 25 mm M.S. Place. complete with full range of spares. No. 1 FICEP SHEAR, max, capacity 50 mm rounds 75 mm x 35 mm bar, 400 mm x 10 mm

flats (spare shear blades). CINCINNATI GUILLOTINE 2.500 mm x 3 mm capacity complete with magnetic sheet supports and motorised back stops. 1974 FULLY AUTOMATED COLD SAW

3 CWT MASSEY FORGING HAMMERpneumatic single blow COLE MOBILE YARD CRANE, 6-ton capacity

36" Dia. HORIZONTAL BULL BLOCK by Farmer Norton. 75 H/P variable

350 H/P TWO SPEED REVERSING ROLLING MILL equipped with 20in dia x 30in wide rolls and twin recoilers.

WALDRICH COBURG HYDRAULIC, PLANER capacity 160in x 50in x 50in. Almost new 4,000 TON HYDRAULIC PRESS. Upstroke

between columns 92in x 52in daylight 51in. UPSET FORGING MACHINE 4in dia, 750 tons upset pressure. WICKMAN 23in 6SP AUTOMATICS 1961 and 1963. EXCELLENT CONDITION. CINCINNATI CENTRELESS GRINDER.

LINDNER JIG BORER, very accurate.

1500 TON CLEARING D A PRESS Bed 180" x 96".

200 TON VICKERS CLEARING PRESS Bed 36in x 40in Air Clurch & Brake as new. 200 TON SCHULER HIGH SPEED PRESS Double roll feed excellent.
WICKMAN 25" 6SP AUTOMATIC

reconditioned.

LUMSDEN GRINDER 36" dia. magnetic chuck, NATIONAL COLD HEADER {" dia., recon.

200 TON TAYLOR & CHALLEN DEEP DRAWING PRESS, excellent condition.
DEEMOR HEAVY DUTY LATHE 38" dia x CINCINNATI No. 3 HORIZONTAL MILL.

INDEX 830 AUTOMATIC, rebuilt.

V.D.F. CENTRE LATHE 26" dia. x 14ft Spindle Bore 5; '.

01-928 3131 01-928 313 Telex 261771 01-928 3131 Telex 261771 Q1-928 3131 Telex 261771 01-928 3131 Telex 261771 01-928 3131 Telex 261771 01-928 3131 Telex 261771 01-928 3131 Telex 26177 Telex 26177 01-928 3131 Telex 261771 01-928 3131



Refitting poles to the rotor of a 456kVA. 450V 12 salient pole alternator from a 24,600 dwt French motor vessel after repair of the rotor and rewinding the stator at the Liverpool repair works of Deritend Electrical Services. The afternator, one of three of the

ship's main generators, failed in service due to fatigue of securing boils to one pole. While the vessel continued to operate on reduced power. Deritend stripped. rewound and rebuilt the alternator which was subsequently reinstalled at a port of call.

• PROCESSES

The first such plant is about

to start production at Eilat and

model for the sale of complete

installations. Four foreign

countries are already negotiat-

### Close view of specimens

apparatus of a new type has in pure aluminium, disposable been built by the Platfilm dishes 2.3 mm dia. × 0.5 mm Division of Rosemount Engineer-deep which are in turn placed ing Company of Bognor Regis. on the platen. It allows direct observation The melting head is connected method has been developed by of the specimen under test, and to a separate control unit which the food division of Koor Inuses a 3-mm square platinum features digital indication of dustries (Koor House, Shaul resistance thermometer element temperature of 0.1 degree Hamelech St., Tel Aviv. Israel). as a precisely controlled heater accuracy. platen. The platen is set in a mounting base made of low enables the observer to "freeze" is to reach capacity output next thermal conductivity material the reading at the instant the month. This £1.1m plant will shaped to enable the complete melting point is reached. This produce one-third of its output assembly to be mounted on the enables the specimen to be

quickly, less than one minute liquid and reading the tem- could be turned into a liquid being required to reach the perature at which this takes maximum temperature of +300 deg. C. The cooling rate is of the same order.

Specimens which may be of

Extraction of palm oil MELTING point determination exceedingly small size are placed AN INSTALLATION for the extraction of palm oil in both solid and liquid form by a new

Novel is a hold button which stage of a standard microscope, viewed continuously, thus liquid. Hitherto, use of this The small thermal mass of eliminating a possible time lag relatively cheap oil, which in the heater enables it to reach error between the observation quality compares with olive oil, the desired temperature very of the transition from solid to was limited by the fact that it

only at temperatures above 30 degrees Centigrade. Rosemount Engineering, Durhan Road, Bognor Regis, 02433 3121. both for export and to serve as

### • MATERIALS

### Makes labelling easy

MULTI-PURPOSE industrial four colours. Any message is tive to embossing tapes.

Labelon requires no machine

0902 42541/2/3 or mechanical apparatus to Telex 336414 create the label. The desired message can be permanently recorded with virtually any instru-ment — typewriter, hallpen or pencil. It can also be made with 0902 42541/2/3 Telex 336414 0902 42541/2/3 Telex 336414

any handy pointed object.

Labelon can also be used to make an exact image of a raised message — a machine serial number for example — by placing it over the message adhesive side down and rubbing the upper surface with any smooth instrument. Once written, the message is completely protected. The surface of the label can be wiped or rubbed without the characters being

affected in any way. The basic material used is a Bioscau, Philpot House, cast acetate film available in leigh, Essex, 0268 778791.

labelling system—Labelon Tape written in a white area in the centre of the label which is covered by a clear plastic film.

However the message written on this area is recorded between two layers of acetate and not on the surface. It is as resistant as the tape itself.

The adhesive used is of the removable type which sticks firmly to any smooth dry sur-face, but enables the label to be removed, and re-used elsewhere if necessary, without leaving a residue on the original

item.
Labelon can be used over a temperature range of from minus 25 degrees C to plus 75 degrees C without damaging the property of the label or the adhesive. Once stuck to a non-flammable surface it is flameresistant. It is also resistant to water, grease, oil, weather and a number of acids.

Bioscan, Philpot House, Ray-

### **MAINTENANCE**

## Sweeper dumps its load

which will discharge collected can be shut off for wet cleaning debris directly into refuse containers is now being marketed. Wayne 60, has two side brooms The sweeper has a and a main pick-up broom which hydraulically controlled rear hopper which can be raised to discharge its contents at heights between 610 mm and 1,422 mm.

A sweeper has a and a main pick-up broom which work together sweeping a swath 1,397 mm wide. The maker claims a surface cleaning performance of up to 10,000 sq m A fast rotating overthrow elevator propels the debris to the top and back of the 180-litre capacity hopper while a powerful vacuum sucks the dust laden

A MECHANICAL floor sweeper electrical shaker. The vacuum The machine, called the FMC per hour. A two-cylinder petrol engine powers the unit and one-pedal control gives the driver instant forward and reverse.

The machine is marketed in the UK by Crosland Sweeper Sales, Hull, North Humberside. air out of the broom chamber through a pack of 32 vertical filters. These are cleaned by an (0482 29072).

### electrical wire and cable? ORDER

Thousands of types and sizes in stock for immediate delivery LONDON 01-561 8118 • ABERDEEN (0224) 724333-

GLASGOW (041) 332 7201/2 • WARRINGTON (0925) 810121 TRANSFER CALL CHARGES GLADLY ACCEPTED 24HR. EMERGENCY NUMBER 01-637 3567 Ex. 409

### SOFTWARE ARCHITECTS LTD. 34/35 DEAN STREET, W.1

PRESENT

Using Microprocessor Technology March 7th-9th, 1979 Café Royal, London. Cost £150

A seminar to introduce microprocessing and to focus attention on real-life applications, with speakers from SAL and Ziloy Inc. For further details contect Stephen Kirk 734 9402

### . IN THE OFFICE

### A clutch of copiers

CONSIDERABLE activity has quent copies are produced at 10 been evident on the small office per minute. Images can be copier front in the last week with the introduction of compact low volume machines from the weight 60 kg. Euro-Copy, Ofrex, Pitney Bowes

and Rank Xerox.

The machine from Euro-Copy is the Mita Copystar with a maximum copying size of 1200 x direct sales and service. The machine is called the 458 and copying per minute. It is a direct sales and service. copies per minute. It is a dry measures 450 x 520 x 320 mm. electrostatic type with automatic First copy comes in five seconds roll and manual sheet feeding, after which the production rate occupies a volume of 640 x 637 x 413 mm and weighs 135 kg. The company is at 1 Long Lane, London EC1A 9HA (01-606

London WIA 1EA (01-636 3686) is offering the Rex-Rotary 5080 in which any plain paper between A5 and B4 in size and 65 to 130 gsm in weight can be used. First copy is produced Road, Uxbridge UB8 in eight seconds, and subse-Middx. (Uxbridge 51133.)

### ELECTRONICS

### **New logic from Texas**

generation of transistor-transistor logic introduced by Texas Instruments, Manton Lane, Bedford MK41 TPA (0234

There are two new ranges of device, one concentrating on high speed (that is, the ability to handle digital data quickly), the other on low power con-

The first, designated SN74AS, is a Schottky design with switching speeds of 1.5 nanoseconds and a power of 22 milliwatts per gate. It is designed for application in mainframe, industrial and military data equipment where fast processing is important but power is not difficult to provide or dissi-pate. Compared with the company's previous devices, SN74AS has better ability to directly drive data bus lines as well as highly capacitive loads. Depending on the function expected to offer an alternathe circuits are performing, use to standard CMOS circuits.

and other performance advant-ages are offered in a "third up to 50 per cent Them." printed board space savings of up to 50 per cent. They will be offered in 20 pin dual in-line packages only 300 mm wide.

A second series. SN74ALS, will be more applicable to compact or portable data systems the consumption being only one milliwatt per gate with a speed which is only slightly slower at four nanoseconds.

paper and on to clear film.

Dimensions are 370 x 480 x 840

Pitney Bowes is a new entrant

This is a particularly small speed-power product and has been achieved by the use of oxide sidewall isolation processing, shallower active junctions using ion implantation, and chip geometries which have an area only 65 per cent of the previous equivalent device.

These circuits will be available in 14, 16, 20 and 24 pin packages and will offer direct compatibility with large scale and most other standard TTL, allowing designers to improve system throughput and effi-ciency. SN74ALS is also ciency. expected to offer an alternative

# Memory is increased

in solid form and two-thirds ABLE TO operate with the board being determined by the company's eight or 16 bit microprocessors, the iSBC64 read-only memory board from Intel Corporation (UK), 4 Between Towns, Cowley, Oxford OX4 3NB (0865 771431) is designed The Eilat plant will work to meet most memory expansion requirements.

It has 16 sockets which provide a maximum of 64k bytes of non-volatile memory expansion, the actual capacity of the

type and quantity of the chips installed. These can be eight, 16 or 32 bit devices and, electrically programmable or ordinary ROM varieties can be mixed, although the same size must be used throughout.

of 15 switch selectable memory access times between 35 and 1550 nanoseconds. allowing it to has half the chip count of its be tailored to the performance predecessor and a commensur-of the installed components.



### COMPONENTS

### Low note is 11 per minute. More on Harlow 26731. The Rank Xerox machine. model 2202 has its own stand for model 2202 has its own stand for speakers supplies and is also a flat bed Speakers

machine aimed at the relatively low volume user. Using dry toner it is able to print A4 copies at 10 per minute and B4 (Torrington Place, London, WCIE 7HD, 01-580 6633) are copies at five per minute. More from Bridge House, Oxford Road, Uxbridge UB8 1HS, loudspeakers which, although their diameter is only seven inches, can produce a frequency range from 50 to 4000 Hz, with a smooth roll-off in the response curve.

Employing paper cone, rubber surround and ceramic magnets, the speakers have a power handling capacity of 30 watts. measured without filter and mounted in the recommended enclosure of 15 litres.

Designated AD70610, the units are supplied with either four or eight ohm impedence.

### IN BRIEF

 Surge protection components, essentially voltage-dependent resistors-for ac and de use between 14 volts and 18 kV are offered by Impectron, 23 King Street, London W3 9LH (01-992

• Piezoelectric industrial grade vibration sensors from Endevco are hermetically sealed and need only a low direct current. Sensitivities are 250 or 790 mil-livolts/g, to 2000 Hz. Melbourne, Royston, Herts. (0736 51311).

◆BFI Electronics has a new range of low cost "zero inser-tion pressure" sockets for dual in-line circuits which are just dropped in and secured by a quarter turn of a screw. More from 516, Walton Road, West Molesey, Surrey KTS OQF (01-941 4066).

● Pushbutton switches of military reliability for applications requiring panel scaling are available from Digitran at Roy-ston, Herts. (0763 61311).

Latest digital to analogue con-The board operates with one verter from Burr Brown Inter-f 15 switch selectable memory national, 17 Exchange Road, ccess times between 35 and Watford, WD1 7ED (0928 33837)

 $\mathbf{E}_{\mathrm{spt}}$ 

17.74

h31 .

### SPECIAL ANNOUNCEMENT

# Mails and Telegrams services to the Republic of Ireland.

The Post Office regrets to announce that because of industrial action by postal staff in the Republic of Ireland, all postal services to and from the Republic of Ireland are suspended until further notice, and telegrams will be subject to indefinite delay.

### Postal Services

No packets, parcels or registered letters can be accepted in post offices. Please do not post mail to the Republic of Ireland in letterboxes.

Telegrams

Telegrams to the Republic of Ireland accepted in post offices or by telephone will be subject to indefinite delay.

Whilst every attempt is being made to deliver mail posted to the Republic of Ireland during the past few days, there will regrettably be delays in clearing the backlog of mail.

A further announcement will be made as soon as normal postal and telegram services to and from the Republic of Ireland are resumed.

The Post Office

# Building and Civil Engineering

# Libyan projects for Finns

£4m. trunk road project

FOUR MILE section of the A9 and includes a three span bridge

contract awarded to Fairclough and Hogg of Glasgow.

Civil Engineering by the Project starts next month and

ing bureaux and construction tion for the Industrialization of companies have signed in Libya has gone to Vesi-Pekka Oy and is worth FM 90m (£114m). This concerns the building of civil and military ports in Tobruk. Enlargement of the civil port includes two concrete piers and the dredging of the port basin,

Cappage.

111 1101

Caken

IN BRID

at a cost of FM 35m.
Second project, a turn-key contract worth FM 55m (£7m) concerns the military port, including an 800 metre long pier and two submarine piers;

between Tore, north of Inver-

ness, and Maryburgh is the

subject of a £4m road building

Scottish Development Depart-

job awarded to the company by

DESIGN, fabrication and erec-

tion of 440 steel pylons, each 45 metres long will bring in \$50m for the Nippon Kokan company under a sub-contract

to Owens Corning Saudi, to

provide the structural steel-

work for the 105-acre roof at the

new Jeddah airport in Saudi

Intended to improve the facilities for the vast numbers

of pilgrims coming from all

over the world each year to go

to Mecca. 48 miles away, the vast "tent"—of Tefion-coated

glass fibre—is to be supported by the pylons which will taper

Erection of the steelwork is

from 2.5 to 1.25 metres.

Libya for the building of dairies in the city of Al Beida, about 50 km from the Mediterranean coast in the Al Gabal el Ardher mountain area. Job includes training Libyan personnel in Finland, as well as responsibility for the production and operation instruction for the period of one year. OMP's Finnish co-operation partners in this project are Valio and Hank-

Fourth contract, made

over the River Conon at Mary-

burgh, and a smaller bridge over a nearby railway line.

Consulting engineer is Crouch

cottish Development Depart- is due to finish two years later, ness and Invergordon—now lent.

It comes at a time when the said to be Britain's most This is the fourth major road Paisley-based division of the northerly industrial centre with

Tempers the sun to the pilgrim

the 1980 pilgrimage.

company is reconstructing a £37m another section of the A9 trunk complex.

ranean coast from the Tunisian border, covering the distance of some 100 km and ending within 50 km from Tripoli. This road is the main east-west thoroughfare, which is of

primary importance to Libya where there are no railroads. The motorway will have two lanes in each direction and will pass four cities, the biggest of basic management contracting which is the port and industrial principle of employing several town Zwara with 25,000 inhabi-

In addition to the road, each 200 metres long. Fourth contract, made In addition to the road,
Another FM 90m (£11½m) between Finnish engineering Devecon will also be responsible
contract has been signed bureau Devecon Oy and the for the planning of five bridges.

road between Crubenmore and.

Scottish division of the com-

pany is also completing a new

Kingussie at a cost of £4.5m.

### Brewery ONE OF the biggest of several between the OMP group of Fin- Libyan Ministry of Transport, contracts which Finnish consult- land and the national organisa- involves the planning of a ing bureaux and construction under way

ning line within the building envelope of Carlsberg's £7.2m extension to its brewery in Northampton will start in June.

Ove Arup and Partners leads the Carlsberg project manage-ment team which has used the basic management contracting contractors directly responsible to the client, rather than the conventional contractor / subcontractor combination, in order to minimise the total design and construction pro-

Main contractor is Kyle Stewart and other consultants involved in the scheme are architect Knud Munk of Denmark and local quantity surveyor, Ernest Howard and Son.

### 55m bridge spanning the Cromarty Firth which will pro-vide better links between Inver-£3.3m work at Gatwick

MAJOR EXTENSION on the a £37m aluminium smelting north-east side of the terminal building at London's Gatwick Airport will cost £3.3m under a contract awarded to Taylor Woodrow Construction by the British Airports Authority.

Work comprises an extension October next year and part of General contractor for Jeddah the shelter will be ready for is Hochtief AG of Essen, West to the arrivals area at concourse level with bridging across the A23; connections to the existing northern bridge and a proposed railway access bridge; and the construction of a balcony extension at restaurant the 44-classroom school which pany to £20m.

> Extension of existing offices on the northern side of the departures terminal is also provided for, and completion is scheduled towards the end of TOBE located on all three plat- centre, communications rooms

Design of the project was carried out by architect York Rosenburg Mardall. G. H. Buckle is consulting services engineer in conjunction with the BAA engineering department under the direction of Mr. G. D. Bell, and quantity accommodation module compris-surveyor is Wakeman Trower ing galley, mess, cinema, games and Partners.

COMPANY NOTICES

Luxembourg, February 19, 1979.

P S A PEUGEOT 64°, 1967-1982 LOAN OF USS20,000,000,-Formerly Andre Caroes)

The redemption on the 15 March. 7979 far which a sum of USS2.167,000. Is planned, has been partially repurchased on the Stock Exchange up to an amount of USS1.23.002. Was frawn by lot of USS1.23.002. Was frawn by lot of USS1.135,002. Was frawn by lot of USS1.145,002. Was frawn was standing, story the redemotion of March 15, 1979: USS7.247.000.

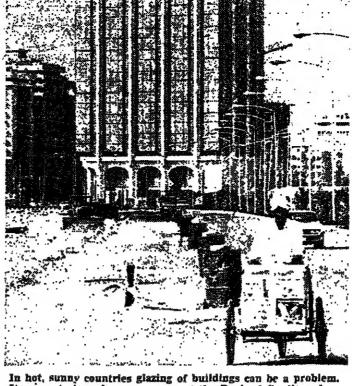
The bonds which have been drawn will case to bear interest as March 18, 1979.

Bonds presented for repayment must

**CITY OF BERGEN 1973/1991** 

7½% Lux. Frs. Loan

Notice is hereby given to bondholders of the above losn that



It seems to have been overcome at the Bank of Credit and Commerce in Abu Dhabi were about 5,000 square metres of Pilkington's SunCool solar control glass has been used. Pilkington says the material reduces solar gain by over 70 per cent thus easing the load on the air-conditioning plant.

### School in Abu Dhabi

VENTURE operation will accommodate 1,000 children group of companies, G & T also includes the provision of Construction, has won a £3m a swimming pool. school building contract. Latest job has brought value

between Tarmac International from the Al Khubairat comand the Dubai-based Ghurair munity of the Emirate. Project

Work has recently begun on of work won here by the com

## Offshore quarters

under a contract worth £1.47m awarded to R. B. Farquhar by Chevron Petroleum (UK).

Largest job. at just under £1m, is for a five storey-high accommodation module comprisquiet rooms, medical

forms on the Ninian Field is fire control room, helicopter modular-form accommodation reception rooms and sleeping quarters in four-man cabins for 76 men with associated toilet and shower facilities.

Entire package is being constructed in modular form at Huntley, assembled on the quayside, then lifted by crane aboard supply barge, and shipped to the Ninian Northern platform.

Petition for the Winding up of the above-named Company by the High Court of Justice was on the 5th day of February 1979, presented to the said Court by EMPLOYMENT PUBLICATIONS LIMITED and by GIRL ABOUT TOWN MAGAZINE LIMITED whose respective registered offices are situate at 183, Fleet Street. London, EC4 2HD and 47/49, Tothill Street, London, SWIH SLQ, and that the said Petition is directed to be heard before the Court sitting 3t the Royal Courts of Justice, Strand, London, WC2A 2LL on the 12th day of March 1979, and any creditor or contributory of the said Company desirous to support or oppose the making of an Order on the said Petition may appear at the time of hearing, in person or by his counsel, for that purpose; and a copy of the Petition will be furnished by the undersigned to any creditor or contributory of the said Company requiring such copy on payment of the regulated charge for the same.

WM. F. PRIOR & CO...

ment of the regulated charge for the same.

WM. F. PRIOR & CO., Temple Bar House, 23/26, Fleet Street, London, EC4Y 1AA.
Rel: PO/8488.

Solicitors for the Petitlonors.

NOTE—Any person who intends to appear on the hearing of the said Petition must serve on, or send by post to, the above-named nouse in writing of his intention so to do, The nouse must state the name and address of the person, or, it is him the name and address of the firm and must be signed by the person or firm, or his or their solicitor (if any) and must be served, or, if posted, must be sent by post in sufficient time to reach the above-named not later than four o'clock in the afternoon of the 9th day of March, 1979

No. 00294 of 1979

AGNEW GALLERIES, 43 Old Bond St., W.1 01-529 6176. : Coth ANNUAL WATER-COLOUR EXHIBITION Until 25 Februs Bry. Man.-Frl. 9.30-5.30. There, until 7. BROWSE & DARBY, 79, Cory St., W.1 Philip Sutton—Recept Paintings.

FISCHER FINE ART. 3D, King St., St. James's, Swil. 01-839 3942 Recent work by two Canadian Realists. D., BROWN and JEREMY SMITH. Until 9 March. Mon.-Frr. 10-5.30, Sats. 10-12.30

Tough spray painting equipment PORTABLE electric airless spray painting equipment for

use by contractors, decorators

and maintenance crews, has

been designed to withstand the rigours of transportation and on-site operation. Powered by a 12 hp electric regardless of pressure varia motor, it has a piston-type pump and simple changeover switch for operation from a normal

sures a smooth, even spray pattern. A simple adjustment knob allows the operator to vary the pressure up to a maximum of 3,500 psi, to match the material being sprayed. The unit has been engineered to maintain a relatively constant delivery rate



water-based materials, the Elec-220-240V 13 amp socket, or from the will maintain two spray apportable 110V generator.

Quiet and reliable in operational distriction of the will maintain two spray caps and reliable in operations. Quiet and reliable in operation, the Electra gives a steady surge-free delivery which ensures a smooth even minute. When used directly immersed into because in the surge of the state of the state of the surge of the state of t immersed into heavy-bodied materials, the unit will maintain full pressure on one spray gun with a 0.53 mm spray cap providing a total of 1.7 litres

per minute. DeVilbiss Company, Ring-wood Road, Bournemouth 020

### IN BRIEF

● English Industrial Estates tory at Church, near Accring Corporation says work has ton, for Joseph Arnold. for the Department of Industry at Sherdley Road, St. Helens, in the Merseyside special development area, under a contract worth about £400,000 awarded to A. Monk and Co.

■ TAC asbestos-cement pipes, valued at £150,000, are to be supplied for a re-sewering scheme for South Hams District Council, acting as agents for the South West Water Authority, to replace existing sewers in Totnes, South Devon.

 Building services contracts valued at over £1.5m have been chester area. Main contract, at £1m, is for the installation of

started on two advance factories . Supply and erection of a bulk fertiliser store at Ince, Cheshire, for U.K.F. Fertilisers is to be undertaken under a £800,000 contract by Bison Concrete (Northern).

• Two contracts worth more than £600,000 have been won by J. F. Finnegan, Largest, at nearly £520,000, is for Merseyside Improved Houses, for 39 new homes at Fazakerley, Liverpool. Second job covers the pro-vision of staff changing accommodation and minimal care unit at Ischrook Hospital, Wellingborough, awarded by Northamptoushire Area Health Authority. awarded to Young Austen and William Tawse has won a con-Young for work in the Man-tract worth almost £500,000 for the development of a new quarry for Lothian Regional air conditioning, heating and Council at Markle Mains, neur plumbing services in a new fac-

### CONTRACTS AND TENDERS

### HOME-GROWN CEREALS **AUTHORITY**

Sale of Barley Ex Intervention Stocks

The Home-Grown Cereals Authority on behalf of the Intervention Board for Agricultural Produce has been instructed to sell by Tender barley from : the Board's Intervention Stocks.

Sales will be ex-store and details of the stores and other arrangements are embodied in a Notice of Invitation to Tender together with tendering forms which are available from:

Home-Grown Cereals Authority, Hamlyn House, Highgate Hill, . London N19 5PR

Tel. No. 01-263 3391.

Stocks for sale are approximately as follows:

Ely, Cambs. Diss, Norfolk 3 331 Tonnes: 1.550 Hadleigh, Suffolk 2,123 Hartlebury, Worcestershire 1.668 Manby, Louth, Lines. 7.590 Old Dalby, Melton Mowbray, Leicestershire 4,529 Polmont, Falkirk, Scotland 129

Allocations will be made on the basis of tenders received for each of the closing dates subject to availability of stocks on these dates:

CLOSING DATE FOR TENDERS WILL BE 12 noon 2nd March 1979

12 noon 9th March 1979 12 noon 16th March 1979

### INSTITUTO DE RECURSOS HIDRAULICOS Y ELECTRIFICACION REPUBLIC OF PANAMA

ADVANCE NOTICE OF INVITATION TO BID NO. 538-79 FOR DESIGNING, MANUFACTURING SUPPLYING, AND INSTALLING 230KV OIL FILLED SELF-CONTAINED CABLE FOR MAIN TRANSFORMER LEADS TO SWITCHYARD

The Instituto de Recursos Hidraulicos Y Electrificacion (IRHE) located at Poli Building, at Justo Arosemena Averand 27 East Street in Panama City, Republic of Panama announces its intention to open bids for designing, manufacturing, supplying and installing 230 KV oil filled self-contained cable for main transformer leads to switchyard.

The tentative date for availability of bid documents is the first day of March 1979. Bid opening date is planned for three months after availability date for bid documents. The exact date and hour and place for opening of proposals will be communicated at the line of delivery of bid documents.

IRHE has received the loan PAN-1470 from the International Bank for Reconstruction and Development (World Bank) in various currencies equivalent to 42 million U.S. dollars towards the foreign cost of the Fortuna Project. It is intended that proceeds of this loan be applied to payments for foreign costs

under the contract for which this advance notice of invitation to bid is issued. These foreign costs will be eligible for disbursements from the loan in the currency of the country of the contractor or in U.S. dollars. Bidders can be considered only from World Bank member countries and State sizes. only from World Bank member countries and Switzerland. When available about March 1, 1979, bid documents as

when available about March 1, 1918, big documents as well as all plans, drawings, specifications and proposal forms may be inspected at IRHE's offices in Panama or at Chas. T. Main International, Inc., Boston, Massachusetts, U.S.A., or at the Panamanian Embassics in the United States of America, France, Italy, United Kingdom, Sweden, Germany, Switzerland, Panamanian and Janam. Brazil, Spain and Japan.

The complete set of documents may be obtained directly from the purchasing department office of IRHE located in the Poli Building, 2nd floor, Justo Arosemena Avenue, or berequested by mail at Apartado Postal 5285, Panama 5, Panama. They may also be obtained at the office of Chas. T. Main International. Inc., Southeast Tower, Prudential Center, Boston, Massachusetts 02189. There is a non-refundable payment of U.S. dollars 100.00 (U.S. Dollars) per set of documents. Cheques should be payable to IRHE.

Arq. Edwin E. Fabreca General Director

### insulated composite cladding is grain on steel profiles, or strect likely to reach haif a million embossed aluminium. A third square metres by about 1982 profile is for walls only and, hoping to meet the major. All are available in lengths up share of this, is a company to 12 metres and provide about which has just launched a new twice the spanning capability

com posites under the brand name metal sandwich built-up con-Unishield. Single element panels all have

insulation values better than by fime investment including

to be simple and speedy.

Two principal profiles have a minimum thickness of 33 mm of polyisocyanurate foam and can be used either for reofs or rerical cladding. Finishes metres.

Its recunical department devised and patented a means of sealing the insulation foam at each side, using a special PVC extrusion, and foam thickness was provided the cladding. Finishes metres.

structions, claims the company. Production has been backed

those required by the new regu-lations, which become manda in order to produce a repeatable, tory from June 1 this year, says high quality, made-to-measure

Gives better insulation IT IS said that the market for include Plastisol PVC leather-

the maker. Cape Universal Clad-ding. PO Box. 165 Tolpits, Wat-ford WDI 8QZ (92-38566). sheeting element. The company says it has doubled the size of its metal rolling plant at its metal rolling plant at Bishops Waltham, near Each of the three profiles now Bahops Waltham, near available includes new features Southampton. At its Watford such as a patented side lap factory it introduced the polyclosure and is marketed as a isocyanurate foam process which complete system, including flash, has certain advantages over constituted in the complete system. ings, fittings and translucent ventional urethane foams. Here, lights. Method of fixing is said its technical department devised to be simple and speedy.

# £2m worth to Laing

EXTENSIONS TO a silicon chip extended. External work infactory and three housing concludes laying new drains and providing new paths, road extensions and car parking. tracts total nearly £2m worth of work for John Laing.

At Siliconia's factory in Morrison, Swansea, a contract for about £880,000 involves First contract in a £1m plus award from Southwark Council is for rehabilitation of nine five-storey blocks on the Doddingbuilding a single storey brick extension to provide assembly ton Estate at Doddington Grove, and test areas, stores and offices. Walworth, London. Under a £915,000 programme, 160 flats A new boilerhouse with assoare to be repaired, modernised ciated service rooms is to be Erection of the steelwork is built, and existing offices are expected to be completed in to be altered, and the canteen and redecorated.

At Ritchie House, Howland Estate, a design-and-construction contract, worth about £100,000, will lead to a tiled, pitched roof being provided and alterations to the drainage

system of the block. A three-storey block of flats in Bermondsey is to have a tiled, pitched roof under a £30,000 design and construction contract.

# Mowlem in

EXPANSION of a fisheries development centre on the coast at Mbegaui, north of Dar-es-Salaam, Tanzania at a cost of £900,000 has been awarded to Construction

Project awarded by the Tanzanian Ministry of Natural Resources and Tourism includes

# Tanzania

Nairobi, Kenya.

the erection of five single-storey buildings, and ground works including new site roads.

Work has just started and hould be completed by the end of this year.

NDC

# Always rise to the occasion

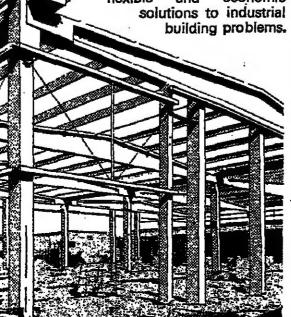
Look to the architect to give you the right Production/Storage/Office ratios in your new building. Expect the architect to look to a Crendon concrete frame for just that degree of flexibility in the final layout which

achieves those things economically. Expect him, too, to demonstrate the other important advantages of precast frameworks - 4 hour fire ratings without further costly encasement of the columns,

maintenance free structures which require no painting, ever.

This new development at Welwyn

Wherever the occasion demands it Crendon always supply fast,

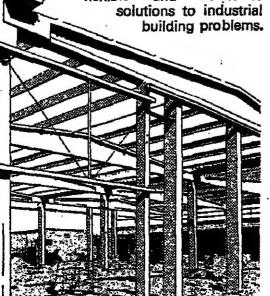


CRENDON CONCRETE CO. LTD Thame Rd, Long Crendon, Aylesbury, Bucks. HP18 9BB Tel: Long Crendon 208481

NORTHERN Rawcliffe Rd., Goole, N. Humberside. Tel: Goole 4201. SCOTLAND Shotts, Lanarkshire ML7 5BP, Tel: Shotts 20261.

Garden City for the new Towns Commission provides 30 industrial units and covers 6000 sq. metres. It was designed by the Louis de Soissons Partnership around Crendon 4° frameworks to have the widest appeal to potential occupants.

flexible and economic



### CLUBS

TRAVEL

EVE. 129, Repent Street, 734 0557, A Is Carte or All-In Mcm. Three Speciacular Floor Shows 10.45, 12.45 and 1.45 and music of Johnny Mawkesworth & Freed, GARGOYLE 69, Doan Street, London, W.1. NEW STRIPTEASE FLEDRSHOW 'AC VOIL LIKE IT.

### the amount redeemable on April 10, 1979, i.e. 25,000,000 Lux. Frs., was bought in the market. Amount Outstanding: Lux. Frs. 375,000,000 The Fiscal Agent KREDIETEANK S.A. Luxembourgeoise

M. L. HOLDINGS LIMITED Ordinary Shares of 25p

7° Reademable Preference of £1 NOTICE IS HEREBY GIVEN that the Transfer Books and Registers of Members will be Closed from the 23rd February, 1979 to the 5th March, 1979, both dates inclusive. By Order of the Board. C. H. JONES,

HOME BREWERY COMPANY LIMITED HOME BREWERY COMPANY LIMITED CUMULATIVE PREFERENCE SHARES NOTICE IS HEREBY GIVEN that the Transfer Books of the above Company will be closed from 22nd March 1979 to the 31st March 1979 (both days inclusive) in order that the dividend warrants may be prepared for the hell-year ending 31st March 1979.

LEGAL NOTICE

No. 0041 of 1979

Chancery Division Companies Court in the Metter of FORMNEW LIMITED and

in the Matter of The Companies Act,

Patition for the winding up of the above-named Company by the High

above-named Company by the High Court of Justice was on the 8th day of January 1979 presented to the said Court by THE INTERVENTION BOARD FOR AGRICULTURAL PRODUCE of Steel House. Tothill Street London SWIH 9LU, and that the said Poution is directed to be heard before the Court sitting at the Royal Courts of Justice. Strend, London WCCA 2LL, on the 5th day of March 1979, and any creditor or contributory of the said Company beatings to support or oppose the making of an Order on the said Pertition may appear at the time of hearing in person or by his Counsol for that purpose; and a copy of the Petition will be furnished by the undersigned to any creditor or contributory of the said Company requiring such copy on payment of the regulated charge for the same.

G. F. ARONSON,

G. F. ARONSON,

Intervention Board for

Agricultural Produce. 55 Whitehell, London SW1A 2EY.

Solicitor.

PERSONAL

NOTICE IS HEREBY GIVEN, that a

In the HIGH COURT OF JUSTICE

By Order of the Board. B. DAVYS. REDEEMABLE BOND SERIAL NUMBERS NOT YET PRESENTED FOR REPAYMENT: REPAYMENT:
REDEMPTION ON 15/2/76
73 bonds have not ver been presented among bonds drawn. They bear Not. 18592:17564.
REDEMPTION ON 15/2/78
Not. 14547/48 - 14870 - 14859/61
14864/65 - 14157/40
The Paying Agent.
EANQUE DE PARIS ET DES
POUR LE GRAND DEVEME DE
LUXEMSOURG. he Brewery, Nottingham NGS 58U, 17th February, 1979,

A. DEVENISH & COMPANY LIMITED NOTICE IS WEREBY GIVEN that the RANSFER BOOKS of the 41.05 Redeemble Debenture Stock 1981/86 and the 10.05 Commissive Preference Stock will be closed one 17th in 30th March, 1978 both dates inclusively interest and Dividend syable on the Sist March, 1979.

A. A. LUTHWAITE, Secretary, Trinky House of the Board.

15. Trinky House Stock, 1979. Weymouth, 6th February, 1979.

FONSELEX International Motoal Fund A final Drydend of S.Fr.35 gross (S.Fr.33.50 net tor non-Swiss holders with a bank declaration) per unit for the year ended 31st October 1978 is declared and will be paid from 1st February 1979 april Coupon No. 14 on presentation to. Banque Keyser Ulthrann en Smisse S.A., 12 rue Saimt-Victor, 1211 Genera 12. Switzerland.

**PUBLIC NOTICES** 

STRATHCLYDE REGIONAL COUNCIL VARIABLE RATE

REDEEMABLE STOCK 1983 Fer, the six months from 18th February, 1979, to 18th August. 1979, the interest rate on the above stock will be 14.1875.

BANK OF SCOTLAND 30 Bishopsgate London EC2P 2EH

MARBELLA, MAJORCA, ALGARVE, Top 101 holidaya from £89 incl. flynards hotak or apon. Self-drive car. Edwards Toppolf, 01-938 4711 (24 hours). Brachures, ASTA 147A ATOL 8768.

FLORENCE—Learn Italian outchly and well at the British Institute Courses March 6-April 13. March 6-March 30. April 17-July 6. April 17-June 8. April 17-May 25. April 17-May 11 Also 4-week Intensive Courses 20 hours tutton per week March 6 and April 17. Accommodation arranged with Italian tamilies. Apply British fosteure. Lungarno Gusstardini 9. 50125 Florence. Tet. 284.031.

### LEGAL NOTICE

No. 00430 of 1878
In the HIGH COURT OF JUSTICE
Chancery Division Companies Court. In
the Matter of ROYSTON DU MAURIER
LIMITED and in the Matter of The
Companies Act. 1948.
NOTICE IS HEREBY GIVEN that a
Peutson for the Winding up of the
above-named Company by the High

named not later than lour actock in the afternoon of the 9th day of March, 1979

No. 00294 of 1979

The HIGH COURT OF JUSTICE Chancery Division Compenies Court in the Matter of LOCKRISE LIMITED and in the Matter of LOCKRISE LIMITED and in the Matter of THE COMPANIES ACT. 1986.

NOTICE IS HEREBY GIVEN that a petition for the winding up of the above-named Company by the High Court of Justice was on the 29th day of January 1979 presented to the said Court by THE COMMISSIONERS OF INLAND REVENUE, of Somerset House, Strend, London, WC2R 118 and that the said Petition is directed to be heard before the Court sitting at the Royal Courts of Justice, Strend, London, on WC2R 118 and that the said Company destrous to Support or oppose the making of an Order on the said Company destrous to Support or oppose the making of an Order on the said Petition may appear at the time of hearing in the furnished to any creditor or contributory of the said Company requiring the same by the undersigned on payment of the regulated Charge for the same.

ERIC MOSES.

Solicator of Inland Revenue, Somerset House, Strand, London WC2R 118.

NOTE—Any person who intends to appear on the hearing of the said Company requiring the same by the undersigned on payment of the regulated Charge for the same.

ERIC MOSES.

Solicator of Inland Revenue, Somerset House, Strand, London WC2R 118.

NOTE—Any person who intends to appear on the hearing of the said the person, or, if a firm, the name and address of the firm, and must be served, or, if posted must be sent by post in sufficient time to reach the above-named not later than tour o'clock in the afternoon of the 2nd day of March 1979

ART GALLERIES

### ART GALLERIES

55 Whitehell, London SWIA 2EY. NOTE.—Any person who intends to appear on the hearing of the said Petriton must serve on, or send by post to, the obove-named notice in writing of his intomion so to do. The notice must state the name and address of the firm and must be signed by the person or firm, or his critheir solicitor (if any) and must be served, or, if posted, must be served, or if posted, must be served. The shore-named not later than four o'clock in the atternoon of the 2nd day of March 1979. CRANE KALMAN GALLERY, 178 Brompton Road, S.W.S. 01-584 7566, 20th CENTURY ENGLISH AND EUROPEAN PAINTINGS AND SCULPTURE including works by Duly, Gross, Hesworth, Miro, Moore, Nicholson, van Dongen, etc. Until 20 February, Mon.-Fri. 10-6, Sats, 10-4, TELDBORNE GALLERIES, 83. Oucess Grove, N.W.8. Trieshone 01-588 3600. CONTEMPORARY BRITISH ART. Mon-Fri. 10-6, Sat. 12.30-3 p.m. FINE ART SOCIETY, 148. Now Bond St. W.1. 01-729 5116. BRITISH ARTS 18th-20th Century.

> 10-12-30
>
> MARIBOROUGH, 5. Albemarle St. W.1.
>
> TOM PHILLIPS, Paintings, Watertolours and Drawings, Mon.-Fri, 10-5-30. Sal.
>
> 10-12-30.
>
> REDFERN GALLERY, DAVID EVANS—
> Watercolours, 1978. January 30th-WaterColours 1978 January 30th-February 28th. 20, Cork Street, London-W.1, Mon.-Frl. 10.5 30 Sats. 10-12.30.

ONE OF the more lasting effects of last year's political pact between the Labour Government and Liberal MPs is the gradual spread of the employee share ownership form of profit sharing in various parts of British industry and commerce. This is because the pact led the Government to include income tax concessions for employee share ownership in last year's

Finance Act. The official starting date for the concessions is now less than developed schemes. The Inland accommodate about 60 passing through its itself. hands, half of which are new arrangements and half are adap- share ownership have played seven or eight years ICI has tations of old schemes. The only a small part in British companies involved range from employee participation policies ICI and British Sugar Corpora-tion to Lloyds Bank, Foster notable exceptions like ICI, Clothing and the House of there have been few if any at Fraser. Several of them have the heavy manufacturing end been given draft approval by the of British industry or in com-incom- duced at ICI last year, the Inland Revenue. Employees in panies that are strongly amount of money allocated is Inland Revenue. Employees in panies that are strongly all these companies will now be unionised. Trade unions have related to a value added assess-eligible for an allocation of traditionally regarded such ment of the company's profits. shares which will then qualify schemes with a mixture of disfor increasing reductions in interest and opposition because fixed unilaterally by manage-income tax depending on how they are primarily interested ment. The average handout last

The Finance Act's arrange influements cover share handouts of ways. up to £500 a year per employee in schemes which are open to all employees. The shares are bought and held by trustees (in the case of ICI's scheme there are four employee and four management trustees). In general, 50 per cent of the tax is waived after five years and per cent after seven years. No income tax is due after ten

Many people assumed, when these arrangements were pass-believe that share ownership ing through Parliament, that can form a primary method of they would lead to a fairly simple form of application in companies which would either interested than personnel decide to adopt or to ignore experts in the notion. This is the concessisons. However, it is already clear that this was incorrect and that there will be shares returns to the company a wide variety of applications.

Swelling tide of employee share schemes

Brothers, are fashioning five years. schemes to operate as selffinancing productivity schemes. The British Sugar Corpora- duced in 1953 and was partly two months away and a signifi- tion is one company that is responsible for giving such cant number of companies have simply setting up a scheme to arrangements a bad name. This the personal is because, at the beginning, neveloped schemes. The inland accommodate the personal is occause, at the beginning. Revenue, which has set up a savings of employees and is not workers sold their newlyspecial unit to vet schemes, has making a direct contribution received shares as they passed

in increasing their members' year was £325 gross, or £206 influence and wealth in other after the income tax that then

caught a tide that was begin- a year received £710 gross while ning to swell in 1976 and 1977 a £2,000 a year manual worker as employers, faced with TUC demands for industrial democracy innovations like the nearly £10m went in income Bullock Report's worker directax. tors, began to look for "softer" mic understanding of employees.

Few companies, however, employee involvement, although finance directors are often more partly because the money spent by the company buying the immediately as investment Companies like ICI, for which qualifies for corporation example, are adapting existing tax relief. And, if the shares share schemes, while others, are held under the new Finance such as Lloyds Bank, are adapt- Act arrangements, the investing mixed share and cash hand- ment is effectively guaranteed

outs. Others, such as Foster to the company for at least Bank which introduced a mixed

ICI's scheme is one of the oldest in the UK. It was intro-Up till now such forms of the way home. For the past estimated that about 40 per cent of its 85,000 qualifying employees have kept their shares while the rest have sold them more or less immediately.

Following modifications intro-Before last year the sum was had to be paid. This meant that But the new tax changes have a middle manager on say £10,000 received £142. The total gross bonus was £27.3m of which

Now the scheme has been forms of participation that changed so that employees can might also increase the econo- choose each year whether to opt for these old style taxed shares which are immediately saleable, or for up to £500 of the allocation to be in newstyle shares which would remain with the scheme's trustees for at least the five-year qualifying period. Higher paid people will be able to take their allocation in excess of £500 in the oldstyle taxable shares and other employees who do not want their money locked up for the five years may also opt out of the new scheme. Another concern adapting its

cash handout and share scheme a year ago for those of its 42,000 employees with more than five years' service. Employees in the bank's bottom three pay grades who earn up to about £4,400 a year were given a cash handout while those above received shares which of course had to be taxed. This scheme would not pass Inland Revenue scrutiny for the new tax concessions because one of the Finance Act's rules. which was included to remove any class divisions in a schemesays that the arrangements must be open to every employee with a certain length of service in a company. So Lloyds has adapted its arrangements which went to an emergency annual meeting

John Elliott looks at the likely impact of the introduction of tax concessions on shares for employees

In future the people in the bottom three pay grades will have an option of either taking cash or shares. Those above can choose whether to take old style taxable shares, which can be sold quickly, or the new style which have to be held by the trustees for five years.

for approval on February 15.

Yet another sort of scheme has been introduced by Foster Brothers Clothing for its 4,000 employees in shops, warehouses and factories. This scheme was being designed before the Finance Act concessions were introduced because the company wanted to start a company-wide formula embracing a valueproductivity scheme in an added assessment of producattempt both to give a day-to-day shop or factory floor incentive its employee costs. The cost of and to provide some unifying the shares is geared to the comforce covering the whole

the Finance Act emerged, the scheme was redesigned. But it still retains a large, taxable, cash element. This has been done by giving employees a choice taking their bonus totally in cash, totally in shares, or half earlier arrangements is Lloyds in cash and half in shares. The

company's management believes time workers, it has opened its that the availability of cash will scheme to all full-timers and ductivity aspect of the scheme while the share ownership option will help to unify the company. It is expected that about \$5 per cent of the em-ployees will take cash in the first allocation for the year

ending this month.

The size of the overall bonus is calculated according to a tivity, the company's profit, and pany's share quotation price on five business days immediately after the announcement of its annual results. The management expect that the bonus for the first year will add 6 per cent to basic pay-which will for example mean a £134 handout to a person on a basic weekly rate of £43.

Since Foster has a lot of part- deal, and the company intends

part-timers doing 16 or more hours a week who have worked for the company for a full year. Part-timers working eight to 15 hours weekly qualify after they have been employed for five years. The company has also built a sanction against taking industrial action into the scheme which was discussed with employee representatives but was not formally put through union negotiating or consultative machinery. This

take industrial action which could have an adverse effect on the profits of the group should forgo their profit share for the period concerned." Because of its cash element. this Foster scheme has had to satisfy the Government's criteria

sanction is that "employees who

on self-financing productivity be vetted by the Department of Employment's incomes policy division to ensure it qualifies as a self-financing productivity ICI's and Lloyds Bank's provide to start a new trend in productivity

has agreed even though the pay policy is currently breaking down. There are two main exemptions to the official pay limits. The first is that all schemes which only provide shares in line with the Finance Act tax concessions are exempted from the pay limits. Second, schemes such as ICI's which include other share and cash options that were introduced before the current phases of pay policy began are also exempted (in the same way as extra payments based ordinary old bonus schemes are

also allowed in excess of the pay limit). But new schemes, like Foster's, which have either

cash or elements which include

other forms of shares, must

any company that

employs us!

While schemes like Foster's choices for their employees, sharing

some companies are designing or adapting schemes which do not include a cash alternative.

For example both the House of Fraser and Bulmer have schemes whereby employees are issued with an allocation of shares. This type of scheme appeals to some companies like the House of Fraser, where operations are scattered around the country and where some subsidiaries (like Harrods in the Fraser case) may have their own cash incentive schemes which will continue to operate independently. This means that the employee takes the grouplevel share or forgoes his bonus. But the advantage for the company is that it is not required to pay out cash as an alternative and so can reinvest the whole of the profit share in its business and obtain corporation tax relief.

Yet another type of scheme is a savings plan which is popular in the U.S. where profit sharing schemes are often linked with pension arrangements. This type of scheme also appeals to more peternalistic managements which feel that employees should make a direct contribution to the cos of the shares. The basis of the scheme, which is being con-sidered by some UK companies. is that a deduction is made from employees' wage packed to pay for shares. The company then tops this up with an alleg-

But, while the company contribution will qualify for the Finance Act's tax concessions there is no similar tax relief for employees' savings which dame out of taxable pay.

So it can be seen that a wife variety of schemes are being introduced to meet the different traditions, management styles financial needs, and existing bonus arrangements of differen companies. It is of course for too early to suggest that the tar changes are going to mike employee share ownership widely popular in the UK. But what is already clear is that the tax changes have below

Americans who visit or work in other people visiting or even the Arab world bother to learn based in the Arab world can

aware of what is going on around them, and need to speak and read Arabic fluently to do fluency to do business in it their job.

(British diplomats spend a solid

But most businessmen and present a reasonable argument Obviously there are some for not learning it. The Arabs people — diplomats and com-mercial bank managers for deal speak good English: Arabic example — who have to be fully is a difficult tongue for Europeans to learn and it takes a long time to gain sufficient

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# Should you learn to speak Arabic?

16 months at their special seem to help. school, and even then few are said to be totally fluent in it). the rudiments of colloquial of Oriental and African Studies class was an Egyptian scientist And few businessmen are likely Arabic explained the basic in London. The advance instruct working in Britain, who had to be involved in the Arab world long enough to justify investing so much time in the

phrases without knowing what faintly complex to a taxi driver matical base would, I hoped, or make a simple request to a enable me to build on what I non-English speaker on the had learnt. There were two classes of 12 the vocabulary for a whole drivers to places I would other-telephone. Phrasebooks and self So I enrolled on what was in people, composed predomin-range of situations, from wise have had difficulty getting teaching Arabic books did not effect a five-day "immersion" antly of sales managers with a making an appointment on the them to go, and from occasion-

I wanted a course that taught grammar, taught a vocabulary and supplied a teacher whom vesting so much time in the one could question till one inguage.

But having visited Arab coun
able to hold simple convertries for two or three months sations with Arabs who did not each year for the past few years speak English, and at least to for the Financial Times, I felt be able to handle some Arabic increasingly foolish knowing greetings and polite conver-almost no words of Arabic. I sational phrases with senior occasionally used Arabic people with whom I was going to talk seriously in English. For the words meant individually one is assured. Arabs are dis-or how they should be pronoun- proportionately pleased to find a ced, and felt frustrated at not European who even attempts to being able to explain anything speak the language. The gram-

course, run three or four times sprinkling of bankers and con-a year for £190 by the School suitants. The teacher of our dential) and that I was to bring out, so to speak.

The fact that the course was clerk who has lost one's reserva-intensive rather appealed to me, tion. since I knew that owing to the rather unpredictable nature of my work I stood little chance of attending regular weekly lessons.

Oriental and African Studies class was an Egyptian scientist tions said dauntingly that no eloquent mannerisms and a English would be used in intro- superb gift for acting. This was ducing new material, that useful as the basic teaching lessons would continue late into method was to engrain phrases the night (the course was resi- and words on one's brain by demonstration, gesture and repetition. Endlessly we a tape recorder with which to repetition. Endlessly we listen to cassettes of what I rehearsed with the teacher, or should have learnt, after lights each other, haggling with taxi a brilliant linguist; I tend to be drivers and berating the hotel

En route we learnt some

simple grammar, while pronunclation was polished up in the moment it is needed. language laboratory. Over the But I have also I five days we had explained to us satisfaction from directing taxi There were two classes of 12 the vocabulary for a whole drivers to places I would other-

"Who are you, where do you live and what do you do" conversation. In all we could have learnt about 500 words.

I came away reeling, with phrases and the gestures associated with them, racing through my mind, overwhelmed by the amount of material thrown at me and clutching two cassettes and a notebook of all I should have learnt. A formight later I went on a

two week trip to Kuwait. I don't consider myself by nature rather bashful and have found I already feet less of an alien as I did on the course, that in an Arab country and that as I did on the course, that one needs lots of practice before the right Arabic word leaps from brain to tongue the

But I have also had some

telephone to handling a crude ally being able to get the drift." Who are you, where do you of simple Arabic conversations. going on around me.

The problem is that if one only pays short visits to the Arab world and spends a lot of time with English-speaking people, one may not get sufficient practice to advance very far, without a great effort. I cannot read Arabic script or .. understand classical Arabic, the form in which speeches are usually made and hooks and official publications written. (The next stage, however, would be the SOAS intensive course in classical Arabic.) But alone is worth something.

Details of the course referred to from: Extramural Division School of Oriental and African Studies, Malet Street, London,

Palarago (d. 1976)

James Buxton

# Some canteens take your breath away.





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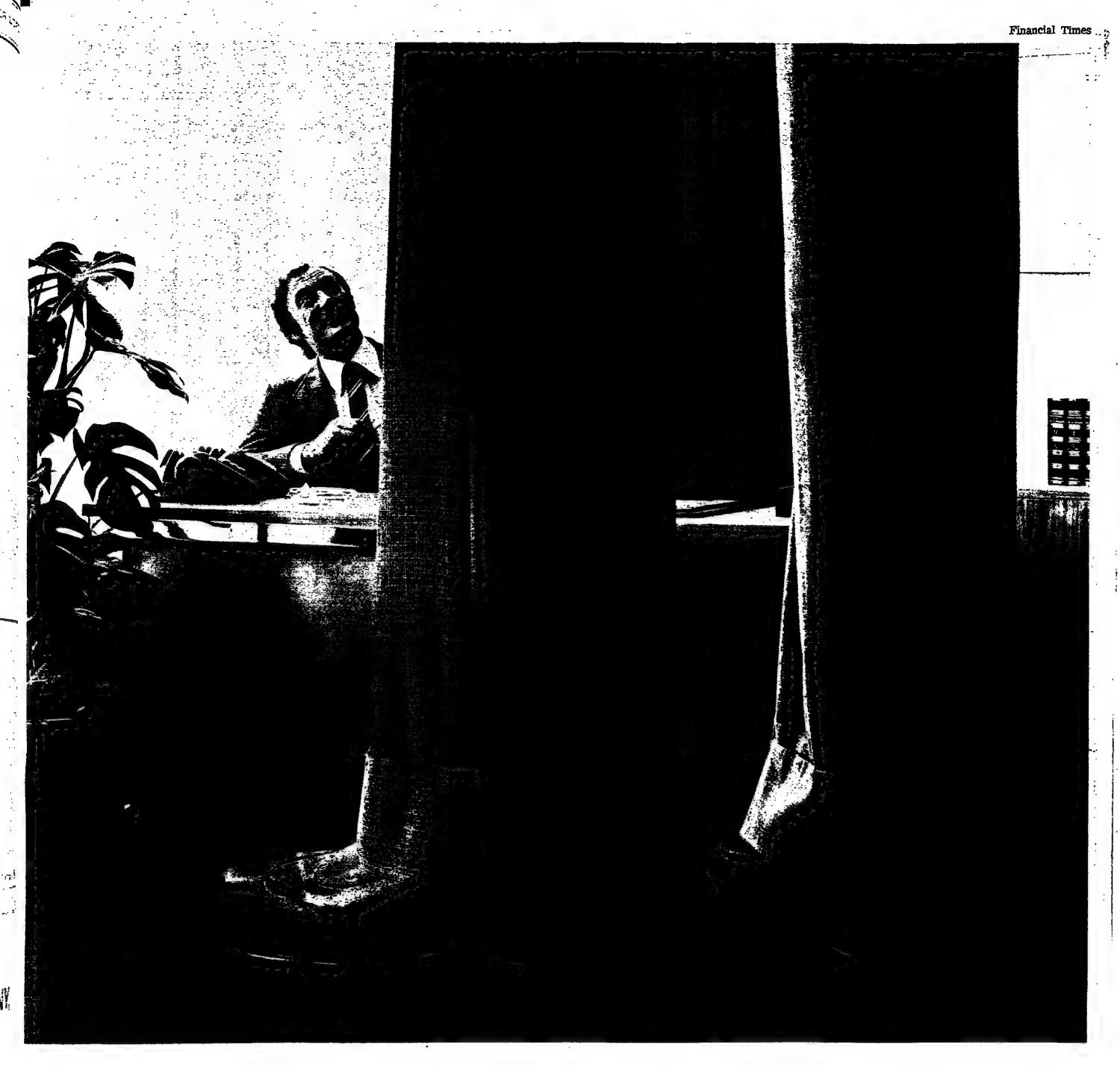
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# Iran and world **Currencies**

BY SAMUEL BRITTAN

in proverbs this is not quite true. The events in Iran are certainly harmful for the world economy. but they have hit some currensterling has almost certainly been a net gainer.

"Iran is part of the story, although not the whole of it in the other part having a great as deal to do with the North Sea. s. Indeed the time could soon come when the British authorities are again faced as they 50: were in 1977 with an embarrass-bo, ing inflow of funds into sterling.

On that occasion the pound was allowed to rise, after an excessive delay; and so far from the catastrophic effects predicted by orthodox Treasury wisdom inflation and unemployment both subsequently fell.

The political future of other oil producing countries is any-one's guess. But the most likely all, already occurred in Iran is on the the world oil price. OPEC had already agreed to a staged 2:2: increase in the dollar price of 2:2: oil amounting to 14.6 per cent in the course of 1979. But much higher spot prices have already been paid for cargoes applying to a very small fraction of world trade. Perhaps a more this significant pointer is Abu this Dhabi's detailed posting of this staged increases in certain crudes amounting to over 23 per cent in the course of the

Mr. But not every country will lose equally. If one is simply looking at the exchange rates go of the main industrial currenend cles against each other there in will be net gainers. As a first ghil approximation, currencies will suffer according to the role of oil in their import bill.

Mr. Alan Budd has just E'''pointed out in a Fielding, decide on their strategy free Newson-Smith Commentary that of the crisis atmosphere of past

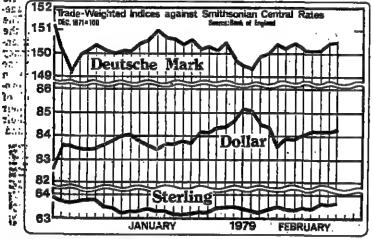
is IT IS AN ill wind that blows expected this year to be about nobody any good. Like most \$1hn. By contrast U.S. imports were running recently at about \$40bn and the Japanese at over \$25bn, Indeed the initial effect of the original OPEC price cies more than others and announcement was a marking down of the dollar and the yen.

The big question about the dollar is whether there is now going to be a sufficient improvement in the non-oil current balance of the U.S. and sufficient confidence in American financial policies to halt the headlong diversification out of dollars in which some countries and investors were indulging last year. If the answer is "yes," about a quarter of the increased oil revenues of OPEC countries could flow once again to New York and the impact on the dollar might be much less than recently feared.

In some ways Japan, whose oil import bill amounts to over 30 per cent of total imports. against just over 20 per cent for the U.S. is in a worse position; and this indeed has been the foreign exchange market view. Nor are Germany and France all that well placed, all of them importing far more oil than the UK. Indeed, the failure of the mark to rise in the face of recent troubles is itself prettty

There are also some longer term aspects to consider. Some UK Department of Energy experts are said to be expecting a doubling of the real oil price by the mid 1980s. Such forecasts are notoriously fallible; but if they are believed they are a bull point for sterling.

Even now oil does not dominate money. But Mr. Callaghan and Mr. Herley can be grateful to a combination of events in hot Persian Gulf and the cold North Sea for a breathing space, which enables them to go for a post-Easter Budget and to



† Indicates programme in black and white.

7.05-7.55 am Open University (Ultra high frequency only). 9.15 For Schools, Colleges, 10.45 You and Me. 11.00 For Schools, Colleges, 12.45 pm News, 1.00 Pobble Mill, 1.45 Barnsby, 2.01 For Schools, Colleges, 3.15 Songs of Praise, 3.33 Regional News for England (except London). 3.55 Play School. 4.20 It's the Wolf. 4.25 Jackanory, 4.40 A Bundle of Bungles, 5.05 John Craven's

Newsround. 5.10 Blue Peter. 5.40 News. 5.55 Nationwide (London and for Wales. South East only).

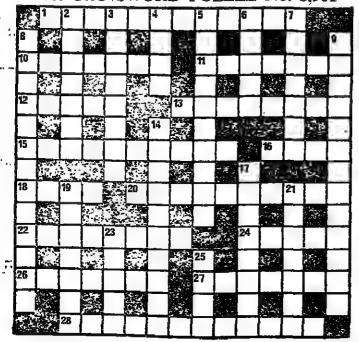
6.20 Nationwide. 6.50 A Question of Sport. 7.20 The Rockford Files. 8.10 Panorama.

9.00 News. 9.25 The Monday Film: "In The Heat Of The Night." England—5.55-6.20 pm Look East (Norwich); Look North (Leeds, Manchester, Newcastle): starring Sidney Poltler Midlands, Today (Birmingham); and Rod Steiger. Foints West (Bristol): South 11.50 Weather/Regional News.

All Regions as BBC 1 except at the following times:—
Scotland—10.00-10.20 am For Schools (Around Scotland), 5.55-6.20 pm Reporting Scotland. 11.50 Referendum Report. 12.00 News

water-endth Report. 12.00 News and Weather for Scotland. Wates—1.45-2.00 pm Pila Pala. 2.18-2.38 For Schools (Let's Look-at Wates). 4.49-5.05 Bobol Bach. 5.55-6.20 Wates Today. 6.59-7.20 Heddiw. 11.50 News and Weather for Wates Northern Ireland-3.53-3.55 pm

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I Tests case for group of strikers (3, 2, 7) 16 Discovered and guided round altered coat (7) 11 Spot old boy returning with

phoney medicine (7) 12 Key month one spent in 6 . . . call from leaders arguholiday isle (5)

means of . . . (3, 7)

16 . . . woman deceived by Jove swanning around (4)
- 18 Blow into wind (4)

free (10) 22 Leaves container for drink 17 Sayings with which Edward to club porter we hear (3, 5)

24 Trunk found on hill like this 19 Furious at seeing father 26 Frees tenancies abroad (4, 3) 21 Brother Marxist willing to

27 Stop hiding result (7) 28 Surprise when unprepared 23 Take over for a party exerto welcome acquisition taking a bow (5, 7)

(s) Stereophonic broadcast

‡ Medium wave

5.00 am As Radio 2 5.00 Dave Lee
Travis, 9.00 Simon Bates, 11.31 Paul
Burnett, 2.00 pm Tony Blackburn,
4.31 Kid Jensen, 7.00 Stayın' Aliva,
8.00 Andy Peebles, 9.50 Newsbeat,
10.00 John Peel (s), 12.00-5.00 am
As Radio 2. 3 Unreservedly dismissed according to the rules (8) 4 Servant, they say, created

5 Building ceremony with excellent old-fashioned . . (7, 3)

RADIO 2

5.00 am News Summary. 5.02 Steve Jones (s). 7.32 Terry Wogan (s) including 8.27 Racing Bulletin and 8.45 Pause for Thought. 10.03 Jimmy Young (s). 12.15 pm Waggoners' Walk. 12.30 Pete Murray's Open House (s). 2.30 David Hamilton (s). 4.30 Waggoners' Walk 4.45 Sports Desk. 4.47 Ray Moord (s). 6.45 Sports Desk. 7.02 Music from the Movies (s). 7.30 Alan Dell: The Dance Band Days. 8.02 The Big Band Sound (s). 9.02 Humphrey Lyttelton with The Best of Jazz on records (s). 9.55 Sports Desk. 10.02 The Monday Movie Quiz. 10.30 Star Sound. 11.92 Stian Matthewintroduces Round Midnight including 12.00 News. 2.02-5.00 am You and the Night and the Music with Len Jackson (s). ing the toss (5) 13 Express wrongly that girl went to gallery (8)

15 Penetrate part taken out by

16 Penetrate part taken out by

17 Notice young attendant escape by percolation (7)

18 Separate letters sent to group of flats all over principal

towns (5, 8) 9 Two cows getting nearer the ground (5, 3, 5) 20 Nude in push to reform Scot 14 Off with Europeans sharing expenses (5, 5)

called the tune (8) grotesque (7)

provide spear (7) cise (5)

25 Fish trodden underfoot (4) The solution of last Saturday's

DOWN

Prize puzzle will be published

Ring cricket club over one with names of winners next

# Getting to grips with corruption

ing and the courts will do what Ministry of Defence in Iran who respectively gave and accepted and sending them to prison. bribes in return for ensuring that Racal obtained a contract from the Iranian Government for supplying radio equipment for Centurion tanks to be supplied by the British Govern-ment\*. Since the army officer's employer, Her Majesty's Government, was keen to see that Racal got the contract, was the conduct of the three men, morally reprehensible as it undoubtedly was, corrupt and

Shuffling off

Judges nowadays, faced with the provisions of criminal statutes, are prone to shuffle off the difficult task of interpreting the words used by Parliament, in favour of letting juries decide what the words mean in ordinary daily parlance, on the basis that common-or-garden words can safely be left to them to decide whether the particular conduct is covered by the

growth. That admirable senti-ment was the gravamen of the who receives a gift is acting judgment of the Court of corruptly. Left without judicial Appeal last week when dismis- guidance on the topic of corsing the appeal of two senior ruption, jurors may tend to find executives of Racal BCC Com- accused guilty simply because munications and an army officer they find the behaviour unattached to the sales staff of the acceptable; and that is hardly a sound basis for convicting them

> In the Racal case the jury had been told by the trial judge, the Recorder of London, that "corruptly" was a simple English adverb, "and I am not going to explain it to you except to say that it does not mean dishonestly. It is a different word. It means purposely doing an act which the law forbids as tending to corrupt." Is. then. every backhander, kickback, baksheesh, rake-off, sweetener, slush-money, or more linquistic-ally refined, every pourboire, given to an employee in relation to the employer's affairs caught under the criminal law of corruption? It would appear so.

In the leading case decided and a mayor in order to help presumably, if anyone doing himself to acquire some land any of those things were defence was that he had any of the council. His prosecuted, a jury would defend the council. defence was that he had not that there was no corruption if and expertise in radio equipapproved of an earlier ruling by offered the money corruptly but the size of the gift, its ment made him ideally suited a distinguished judge. In that \*R. V. Wellburn and others,

One wonders whether the bring the matter to light if and That defence was - roundly accused's motive for offering

implication. If so, where is the they can to stop its cancerous ordinary juryman does find it when his offer was accepted. line to be drawn? The Racal case poses the rejected, on the ground that the dilemma that the decision of

the Court of Appeal does the inducement was irrelevant, nothing to dispel. In 1970 the

THE WEEK IN THE COURTS

BY JUSTINIAN

"Corruptly" was held to mean only deliberately offering a person with intent that he should enter into a corrupt bargain. The mere agreement by the mayor to accept the gift offered would in itself be an offence, and that, therefore, what the accused had intended to induce the mayor to do was something prohibited by the A payment made to someone

with his employer's approval is surely not a corrupt bargain. Otherwise gifts which are generally indulged—tips to waiters, Christmas boxes to staff from the employer's customers, the entertainment of employees—would all be In 1971 and 1973 a major in tract for Racal, was a corrupt corrupt transactions. But the Royal Corps of Signals was one. So the jury decided, suppresumably, if anyone doing a spell of duty with the ported by the Court of Appeal any of those things were sales directorate of the In upholding the conviction, the prosecuted, a jury would decide Ministry of Defence. His rank Court of Appeal implicitly distingting the convention if

Iranian Government wanted to equip its army with Chieftain tanks. It agreed to buy such tanks, but what it bought could not be fitted with the same kind of radio equipment as was used in the tanks in service with the British Army, on account of production difficulties. Other radio equipment had to be found. Suitable equipment was being manufactured by the Racal company and by at least one rival US company. The British Government was not un-naturally keen that the Iranian Government should buy Racal. Negotiations for the sale were begun and carried on at govern-

mental level,

the contract. In 1971 the prospects for success in getting the contract for Racal waxed and contract for Racal waxed and for the supply of peas between waned. Indeed field trials on the accused and the company. Racal and American equipment favoured the latter. The major it could find the accused guilty was able to demonstrate that the trials were conducted unfairly. Senior staff at Racal became convinced that the contract would be won only if payment of "commission" Was made. Hence one of the two executives who had met the

major agreed to pay the major large sums of money in return for which he would see that Racal's equipment was accepted by the Iranians. Early in 1972 a contract worth between £4m and £6in was concluded between a British Government agency and the Iranian Government.

Not sound law

On the law as it stood the bar-gain made by the two Racal executives with the major, whereby he feathered his nest at the expense of Racal, which willingly paid out to him for his efforts in getting the con-tract for Racal, was a corrupt

CORRUPTION in public and words so as to affix criminal in order to expose corruption, customary nature and its open- to helping his government and case a man was charged with commercial life is rife, is grow- responsibility on the accused. and his intention had been to ness did not suggest any sinister. Racal in the negotiations for corruptly giving money to company the courts will do what ducement to set up a contract The jury was told that before he must be shown to have dishonestly intended to weaken the employee's loyalty to the company and to transfer that loyalty from the company to the accused.

> That ruling favours the view that if the employee in accept. ing a bribe (even a secret one) did not intend to do anything contrary to the interests of his principals no offence of corruption was committed. The prosecution would have to show that a contract gained by the accused was no less advan-tageous to the company whose servant was bribed than a contract with any other company would have been. This seems to make good sense, but not it appears sound law. Either the House of Lords should take the opportunity of reviewing this unsatisfactory branch of the law, or the Law Commission should quickly divert its attention to the topic. The control of corruption is so important to any civilised society that the law should be as precise as

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Wigano:

### Freeze bites into savings a savings announced that the Piper

WITH THE abandonment of to- Association .. into day's Plumpton and Nottingham account with a building society. favourite, Gay Spartan, will be to 110, only three short of the employed, with no retainer to run market rival Gaffer. worst previous taily for an en-full back on. They are caught tire season. Furthermore, in one of the grimmest periods prospects of racing resuming for riders since the war, for the tomorrow appear bleak to say nature of their business does the least for both Towcester and not allow for the dole.

racing

BY DOMINIC WIGAN

Sedgefield report frozen rtacks. feature of the weather-stricken temporarily — on retirement season, which has seen only a from the saddle. handful of successive days' Savings Plan.

from the £23.50 riding fee and Incident. channelled by the Jockeys'

Northern Ireland News, 5.55-6.20

and Weather for Northern

Today (Southampton); Spotlight

BBC 2

2.15 pm Let's Go. 2.30 Shakespeare in Perspec-

3.00 That's the Way the Money

Goes. 3,30 Della Smith's Cookery

4.25-5.15 and 5.40-6.55 Open University. 6.55 The Water Margin.

4.00 The Education Debate.

7.35 Mid-evening News. 7 45 In the Post

8.16 Olivia Newton-John.

9.00 Fawity Towers. 9.30 Where We Live Now,

LONDON

9.30 am Schools Programmes. 12.00 The Wotsit From Whizz-

Bang. 12:10 pm Rainbow. 12:30 The Cedar Tree. L00 News, plus

South-West (Plymouth).

People. 11.00 Play School.

Course.

11 35 Late News

5.45 News.

10.00 News.

RADIO 1

RADIO 2

6.00 Thames at fi.

6.35 Crossroads.

Show.

9.00 Danger UXB.

Show.

7.30 Coronation Street.

8.30 World in Action.

10.30 The Eamonn Andrews

11.45 Telé-Journal.

Ireland.

to find many jockeys with families to support, mortgages mined on Wednesday morning.
and often out-of-pocket Despite the desperate need of expenses, such as running a car a public outing for virtually all and abortive journeys to "late the Gold Cup candidates no abandonments," being forced to trainer in his right mind is draw on the scheme set up to cushion the financial blow One particularly disturbing which comes for many-at least about the state of the ground.

Many trainers and jockeys. sport since the New Year, is both in the south and north, that an ever-increasing number will be hoping that Windsor on of jockeys (including one or two Wednesday will not prove yet not far removed from the top another success for the weather. earnings bracket) are being The Fairlawne Chase, brought forced to draw on the Jockeys. into being 15 years ago, could provide a useful Cheltenham The savings plan—a long—Gold Cup guide, for the 33 a £130n term scheme administered by entries include Gay Spartan and Stafford, Weatherbys—sees £1 deducted Gaffer as well as Border The ass

Tony Dickinson has already village of Hopton.

11.30 Barnaby Jones. Jones reads from the writings of Mao Tse Tung.

All IBA Regions as London xcept at the following times:

Street Page 125-1230 am Streets of San Francesco. except at the following times:-8†.eeththth

ANGLIA
1.25 pm Anglia News. 2.00 Houseperty. 2.25 Monday Film Marinee:
"Journey To The Far Side Of The
Sun." 5.15 University Challengs. 6.00
About Anglia. 10.30 Morecembe and
Stone. 11.00 Monday Feature Film:
"The Psychopeth." 12.30 am
Reflection. 6.40-7.55 am Open University. The P.
10.30 Working With Young Reflection.

> ATV 1.20 pm ATV Newsdesk, 5.15 Give Us A Ciue, 6.00 ATV Today, 10.30 Left, Right and Centre, 11.00 "The Love Goddesses." BORDER

t1.20 pm Border News. 2.00 Houseparty. 2.25 Matines: "Queen of the Stardust Ballroom," starring Mauredn Stapleton. 5.15 University Chellenge. 5.00 Lookaround Monday, 5.20 The Sound of . . The Settlers. 10.20 Reterendum '79. 11.00 Film: "The Lovers," starring Richard Backinsale and Paule Wilcox. 12.40 sm Border News Summary.

CHANNEL 1.18 pm Channel Lunchtime News and What's On Whare. 2.25 Monday Matunes: "A Doll's House." 5.15 University Challenge. 6.00 Chennel News. 5.10 The Amazing Chan and the Chan Clen. 10.28 Chennel Late News. 10.32 Country Style. 11.00 Feature Film: "Footsteps in the Fog." 12.20 am Channel Gazette followed by News and Weather in Franch.

Rews and Weather in French.

GRAMPIAN

9.25 am First Thing. 1.20 pm
Grampian News Headlines. 5.15
University Challenge. 6.00 Grampian
Today. 6.05 The Electric Theatre Show.
10.30 Reflections. 10.35 Feature Frim:
"Queen of the Stardust Ballroom."
storring Maureen Stapleton. 12.20 am
Grampian Late Night Headlines. 8.25 am First Thing, 1.20 pm
Grampian News Headlines. 5.15
University Challenge. 8.00 Grampian
Today. 6.05 The Electric Theatro Show.
10.30 Refloctions. 10.35 Feature Film:
"Queen of the Stardust Baltroom."
Storring Maureen Stapleton. 12.20 am
Grampian Late Night Headlines.

GRANADA
1.20 pm Dodo. 2.25 Monday
Matines: Bracford Dillman in The
Widow." 5.10 May. the 2,000 year
old Mouse. 5.15 Crossroads. 6.00
Granads Reports. 6.30 Hanny Days. FT index. 1.20 Thames News. 1.30
About Britain. 2.00 After Noon
Plus. 3.20 Raffles. 4.20 Clapperboard. 4.45 The Tomorrow
People. 5.15 Batman.

7.00 The Kenny Everett Video Granada Reports. 6.30 Happy Days. 10.30 City at Risk. 11.00 Mystery Movie: "McLeod." 8.00 A Sharp Intake of Breath.

HTV
1.20 pm Report West Headlines. 1.25
Report Wales Headlines. 6.15 The Undersea Adventures of Captain Nerm.
Undersea Adventures of Captain Nerm.
5.20 Crossroads. 6.00 Report West.

WORKSHIRE
1.20 pm Calendar News. 2.25 Monday Matines: "Summer Medness," "Summer M Short (telk). 12.20 Midday Concert, 6.30 Tell Me Where It Hurts (s). 7.00 part 2 (s). 1.00 Ngys. 1.05 BBC News. 7.05 The Archers. 7.20 From Lunchtime Concert (s). 2.05 Music for Organ (s). 2.55 Matines Musicale (c). 3.55 New Records (a). 4.55 Monday Play (s). 8.45 Scotland at the Crossroads. 9.30 Today in Synod. 18 Sandstand (s). 5.25 Homeward Bound (s). 5.25 Homeward Bound (s). \$5.45 News. \$5.50 Homeward Bound (continued). \$6.15 At Homes: Purcell, Vivalid; Hondel. 7.10 From the Disry of Samuel Pepys (s). 7.30 "The Megic Flute" opera in two acts by Mozart, Act 1 (s). 8.40 We Are Solltary (Rilke's letters). 9.00 The Magic Flute. Act 2 (s). 10.45 Schubert Pleno recital (s). 11.25 Jazz in Britain (s). 11.55-12.00 News. WHF only—6.00-7.00 am and 5.45-7.19 pm Open University. RADIO 4

RADIO 4

6.00 am News Briefing, 6.10 Farming Week. 6.25 Shipping forecest. 6.30 Today, Magazine, including 8.45 Prayer for the Day, 7.00, 8.00 Today's News, 7.30, 8.30 News headlines, 7.46 Thought for the Day, 8.35 The Week on 4. 8.45 James Cameron with the 8BC Sound Archives. 9.00 News. 9.05 Start the Week with Richard Boker. 10.00 News. 10.05 Wildlife. 10.30 Daily Service. 10.45 Marning Story. 11.00 Whet is News? (News editors discuss their work). 11.45 Listen With Mother. 12.00 News. 12.02 pm You and Yours. 12.27 Quote . Unquots (s). 12.55 Weather, programme news. 1.00 The World at One. 1.40 The Archers. 1.55 Shipping forecast. 2.00 News. 2.02 Women's Hour. 3.00 News. 2.02 Women's Hour. 3.00 News. 3.05 Afarmoon Theatre (s). 4.25 Story Time. 5.00 PM News. magazine. 5.50 Shipping forecast. 5.55 Weather, programme news. 8.00 News.

RADIO 4

programmes due to freezing For the most part the 200 or travelling down to Windsor and ground conditions, the number so senior jockeys riding under I shall be surprised if Fulke of meetings lost has crept up National Hunt rules are self- Walwyn does not decide to However, both those chasers

as well as Border Incident are engaged in the Jim Ford Challenge Cup at Wincanton on the following day, and the picture is It is therefore not surprising unlikely to become clear until ground conditions can be deter-

going to risk a Cheltenham prospect until he feels satisfied

Super-pit call

THE COUNTRY Landowners' Association has called on the Energy Secretary to hold a public inquiry into plans to dig a £130m "super-plt" near

The association is concerned at loss of farmland around the

6.22 Report Woles. 10.35 The Monday

SOUTHERN.

ULSTER

WESTWARD

5.00 am As Radio 2. 6.30 Rush Hour. 9.00 London Live. 12.03 pm Call In. 2.03 206 Showcase. 4.03 Home Run. 6.10 Lock, Stop, Listen. 7.30 Black Londoners. 8.30 Break-through. 10.03 Late Night London. 12.00 As Radio 2. 12.05 Question Time from the House of Commons. From 1.05 As Radio 2.

News, information, travel, sport. 10.00 Brian Hayes. 1.00 pm LBC Reports. 1.00 George Gale. 4.00 LBC Reports (continues). 8.00 After Eight. 9.00 Nightline. 1.00 am Night Extre.

6.00 sm Graham Dens's Bresklast Show (s). 9.00 Mike Smith (s). 12.00 Deve Cash (s). 3.00 pm Roger Scott (s). 7.00 London Today (s). 7.30 Adrian Love's Open Line (s). 9.00 Nicky Home's Your Mother Wouldn't Like It (s). 11.00 Tony Mystt's Late Show (s). 2.00 am Peter Young's Night Flight (s).

Londón Broadcasting

Capital Radio

THEATRES Francisco.
HTV West—As HTV General Service except: 1,20-1,30 pm Report West Headlines. 6,22-7,00 Report West. SCOTTISH

OVER 100 perfix Now tooking to west.

ALBERY, From 8.30 am, 836 3875. CC.

BRES 836 1071-3. Perty rates.

2008. 7.45. TROTS: 386 527. 4.30, 8.00

2008. 7.45. TROTS: 386 527. 4.30, 8.00

INFORMATION TAMES WELCOME 15

"MIRACULOUS MISSICAL." Fin Times.

CLIVER
WICH NOY HUDD

GILLIAN BURNS. MARGARET SURTON

CHILDREN HALF-PRICE OFFER
NOW MODKING TO 1980. 1.25 pm News, and Road and Warther. 5.15 Teatime Tales. 5.20. Crimedesk. 6.30 Steve Jones Illustrated. 10.30 Referendum 79, 11.00 Late Call. 11.06 The Detectives.

1.20 pm Southern News. 2.00 House-party. 2.25 Monday Matines: "Ferry to Hong Kong," starring Orson Welles. 5.15 Sinbad Junior. 5.20 Crossroads. 6.00 Day by Day 6.45 Dick Barton—Special, Agent. 10.30 Southern News Extra. 10.35 Star Treatment. 11.05 Barneby Johas. 12.06 am Farm Progress. ALDWYCH, 836 6404, Into, 836 5382.
ROYAL SHAKESPEARE COMPANY In repertoirs, Ton't, 7.30, then Feb. 26, 27
Bronson Howard's comedy

"An irrelatible, delightful evening," S. Boyrets. "Dennis Waterman gives a performant," Dennis Waterman gives a performant, "Dennis Waterman gives to be rowned to the second state of the second s Progress.

TYNE TEES

9.25 am The Good Word, followed
by North East News Headlines. 1.20
pm North East News and Lookaround.
2.25 The Love Boat. 3.20 Generation
Scens. 3.35 Cartoon Time. 3.50
Lassis. 5.15 University Challenge. 6.00
Northern Life. 11.30 Cash and Co.
12.30 am Epilogue.

AMEASSADORS. CC. 01-538 1171.
Evgs. 2.00. Tues. 2.45. Sat. 5.00. 8.00.
JAMES BOLAM
GENALD FLOOD
in A NEW THRILLER
WHO KILLED
AGATHA CHRISTIE
"Best since Steuth." N. Statesman.

ASTORIA THEATRE CC. Charing Cross
Rd. 734 4291 or 439 8031. Mcn.-Thurs
8.00 p.m. Fri. and Sat. 6.00 and 8.45.
ELVIS
BEST MUSICAL OF THE YEAR
EVENING STANDARD AWARD
SECOND GREAT YEAR
Group bookings 01-437 3856.

CRITERION. From 8.30 a.m. 930 2216.
CC bkos. 8.36 1071. Evs. Mon. to Thurs.
8.00. Fri. and 5st. 5.45 and 8.30.
8657 COMEDY OF THE YEAR
Evening Standard Drama Awards
Calco 100
"Michael Nasting's quick-writed farte
on how to become a legal immigrant in
one casy wedding. Observer.
"THE MOST HILARIOUS PLAY FOR
YEARS." Financial Times.

DRURY LANE. CC. 01-836 8108. Mon. Sal. 8.00. Mats. Wed, and Sal. 3.00. A CHORUIS LINE

" A rare, devastating, Joyous, astonishing stannor," Sunday, Times. Labor 51% WESKS. DUKE OF YORK'S. CC. 01-836 5122, Evenlogs 8.00 pm. Mat. Thors. 3.00 pm. Sat. 5.30, 8.30.

FORTUNE, 836 2238, 2vs. 8.00, Thurs.
2.00. Saturday. 5.00 and 8.00
AGATHA CHRISTIE'S
MURDER AT THE VICARAGE
FOURTH GREAT YEAR

THEATRES

GLOSE THEATRE CC. 01-437 1592. Red. Preview Mar 5, 8.13, Opens Mar. 7 at 3.00. Alison STEADMAN hristopher CAZENOVE AYCKEGURN'S New JOKING APART

HAYMARKET, 01-830 8812.

1986-8.00, Wed. 2.30, Sat. 4.30, 4.00.

PENELOPE KEITH

NIGGL

HAWTHORNE

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THE NILLIONALINERS

LIMITED SERBOR MUST END MARCH 3.

KING'S ROAD THEATRE 01-382 7446.
Monday to Thursday 5.00.
Friday and Saturday 7.30 and 9.38.
THE ROCKY HORROR SHOW.
DON'T DRIAM 17. SEE 17.
LAST SIX WEEKS.

LAST SIX WEEKS.

LYRIC TRUATRE. CC. 07-237 1886;
ESS. 2.00. There. 3.00. San. 2.00, 8.30.

BARBARA FRANK

JEFORD FILLMENA

BY Eduardo de FILIDO. Directed by
FRANCO ZEFIRELLI

SOCIETY OF WEEK FINE TOWNERS

"TOTAL TRIUMENT. E. NOWS. "AN
EVENT TO TREASURE." D. MIC. MAY
TYENT TO TREASURE. D. MIC. MAY
YEARS. "SIMBLY TIME.

MATIONAL THEATRE. 913 1283.

OLIVIER (open stages: Tonight & Tomor. 7.30 STRIFE by Galsworthy.

LYTTELTON (accession place): Tonight & Tomor. 7.33 STRIFE by Galsworthy.

LYTTELTON (accession place): Tonight & Tomor. 7.33 STRIFAYAL new play by Picter.

COTTESTOR (small sushiperiom): Tonight & Go. (Previow): Tomor. 7.03 (Capsing).

The LONG VOYAGE MOME by Eugene O'Neill.

Many excellent clears seets 4ff 3 theorem day of perf. Car park. Restaurant 928 2033. Credit card bookings 928 3052.

OLD VIC THEATRE. 01-928 7616, Young Vic Company in Shakespeare's Tricopy directed by Michael Boodanov. Tues. 7 pm RICHARD III. Thurs. 75.m. HAMLET, Set. 7.30 786 EMPEST.

A National Theatre Production:
PHOENIX THEATRE. CC. 01-836 2294.
Evs. 8:00. Wed. 3:00. Sat. 5:00 and 8:30
DIANA RIGG. JOHN THAW In
NIGHT AND DAY
A New play by TOM STOPPARD
Officetors by PETER WOODS
BEST PLAY OF THE YEAR
Evening Standard Dramp Award

CUEEN'S. CC. 01-734 1156.
Evs. 8:00. Fri. and Sat. 6:00 and 8:45.
"MAGICAL"
"A DREAM OF A SHOW." E News.
by PETE TOWNSHEND and THE WHO
A ROCK MUSICAL with
ALLAN LOVE. PETER STRAKER
ANNA NICHOLAS and EOB GRANT

RAYMOND REVUEERA. CC. 01-734 1593

21st SENSATIONAL YEAR

ROYAL COURT. 730 1745. Prevs. from
There at 8. Opens Feb. 27 at 7.

THE LONDON COCKOLDS

by Edward Ravenscroft

PUYALTY CC. 01-465 8004.

Monday-Thoraday, evenless 8 00. Frrday
5.30 and 8.45. Saturday 3.00 and 8.00.

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TOM CONT!
ACTOR OF THE YEAR
West End Theatrd Award in
PLAY OF THE YEAR
WHOSE LIFE IS IT ANYWAY?
by Brize Clarke. "A momentous play. I
urse you to see it." Gdn. Evs. 8.00. Sat.
5.45 & 8.45 Red. price mats. West. 3.00

PRINCE CHARLES, Lote, Sq. 01-437 9151 Must In beg. 21. Welerian Bortwert's THE SEAST London (XL. Sep. 984% Office, Sun.) 3.10 5.35. 8.39. Late 90% Fri. 8 5.1 14.15. Like bur Frim Feb. 22. IN PRAISE OF OLDER WOMEN (X). Sur. Office Open — Book Now.

رهکدامن ایمل

### ADIO 5

### 45.55 am Weather. 7.00 News. 7.05
Overturs (a). 8.00 News. 8.05 Morning Concert (a). 9.00 News. 9.05
This Week's Composers: Andres and
Glovenni Gabrieli (s). 9.45 Talking
About Musels (a). 10.15 Vicilin, Horn
and Pieno recital (a). 11.30 Midday
Concert, part 1 (a). 12.10 pm in

RADIO 3

# ENTERTAINMENT GUIDE

DPERA & BALLET COLISEUM. Credit cards 01-240 \$255.
Reservations 01-036 3161
ENGLISH NATIONAL OPERA
Winners 1978 SWET Award
Outstanding Achievemen: in Opera
Tomor. & Thur. 7.00 Carmen. Wed.
& Fri. 7.30 Dide and Accessive Namelies de Treslac. Set. \$.30 Steptred.
104 balcony seats avail, for all perfafrom 10.00 on day of perf.

COVENT GARDEM. CC. 240 1066.
(Gardsscharge Credit Cards 236 6903.)
THE ROYAL OPERA.
Topight, Wed, and Sat. 7.30 Die
Zauberfote.
THE ROYAL BALLET
Tomor, and Tour. 7.30 Romeo and Juliet.
Fri. 7.30 Enigma Variations, Symphonic
Verlations, The Concert. 65 Amph! Seats
avail. for all parts, from 10 am on day
of perf.

DOMINION, Tottonham Ct. Rd. 560 9552. LONDON FESTIVAL EALLET Mar. 6 to 17 ROSALINDA. New consedy pallet music by J. Straus. Mar. 19 to 27 Nurvyer's production of Tchalkovsky's The Steepling Beauty. Mar. 25 to 31 Les Sylphidgs. Petrouchka. Prince ipor. PRENCH INSTITUTE, Queensberry Place, South Ken. tube. 21 & 22 Feb. at 7.30 p.m. First performance of Darius Milhaud's additions to "Une Education Manquee"—Enumencel Chabrier in Edinburgh Postival 1978 production by Intermagal Ensemble plus "Un Mori a 19 prote"—Jecusa Offenbach. Soars: E2.30, 67.80 stogents. Tel: 369 6211 est. 40.

SADLER'S WELLS THEATRE, Rosebery Ave. ECT 337 1672. Lest week GILBERT AND SULLIVAN FUS. 7.30. Mats. Wed. and Set. 2.30. Toxight, tomor. and Weg. THE FIRATES OF PENZANCE. Thur., Fr. and Sal. mat. PATIENCE. Set eve 72.

ADELPHI THEATRE 01-528 7511.

EVER. 7.30. Mats. Thur. 3.00 Sats. 4.00

Selts from E1 81 doors.

JOHNNY DORELL.

IS BACK IN LONDON'S HAPPIEST

AND SPECTACULAR WISICAL

BEYOND THE RAINSOW

From the Novel after Me the Deluge."

Over 100 perfs. Now booking to Sept.

ARTS THEATRE. 01-836 2122.
TOM STOPPARD'S
DIRTY LINES
"Hilarious . . See It," Sunday Times.
Mon. to Thursday 8.30. Priday end
Saturdays 7.00 and 9.15. 1.20 pm Lunchtime. 2.25 Keep Up With Yoga. 2.55 The Friends of Man. 4.18 Ulster News Headlines. 5.15 Cartoon Time. 5.20 Crossroads. 6.08 Good Evening Ulster. 10.30 Compass. 11.00 Testimony of Two Men (part 4). 11.40 Bedtime.

CAMERIDGE CC. D1-836 6056.
Ergs. 8.00. Mats. Thurs. and Sat. 3.00.
TROUBABOUR
THE BEST SRITH PRODUCTION OF
A MUSICAL STRONG AMPLOT "
Broad Marshall, Cavital Radio.
LEAST WEEK. ENDS SAT.

CMEDY.

Opening February 21 at 7.00.
BERNARD CRIBBENS

JOYCE BLAIR

AN MORSSINGTON IN
FORTY LOVE
A New Comedy
By LESLIE RANDELL
WILL STELLA TANNER
PREVIEWS TUES. FER, 20 at 8.00.

DUCHESS, 836 8243. Mon. to Thurs feedings 8.00. Frl. and Sat. 5.30 & 8.15.
"The modity is stunning." Daily Tel. OH! CALCUTTAL OH! CALCUTTAL Ninth Seastional Year.

COURTENAY CLOUDS KENDAL

"IS BLISS" Observer
"MICHAEL FRAYN'S FUNNIEST PLAY,"
Dally Telegraph.

GARRICK. CC. 01-836 4601, Evgs. 8.00.
Ghard), Wed. 3.00. Sat. 5.30 and 8.30.
DENIS QUILLEY IN TRA LEVIN'S
NOW THRIBE.
THREE CHEERS FOR TWO HOURS OF
MARYELLOUS ENTERTAINMENT. S.Tel
"VERY EXCITING." FIN. Times.
VERY INGENIOUS. VERY FUNNY. GLOSE THEATRE CC. 01-437 1592.
Evgs. 8.15. Wed. 3.00. Sat. 6.00. 8.40.
PAUL EDDINGTON, JULIA MACKENZIE
BENJAMIN WHITROW IN
Alan Ayekbestrie contedy
THE TIMES TABLE
LAST 2 WEEKS ENDS MARCH 3 THEATRE UPSTAIRS: 710 2154.
Mon-Thu. 7.30 FM. & Sab. 7.30 & 9.30
Winston Nizhona in Filhl FRONTAI by
Michael Hastings. Ton't Tomor. Wed.
The. 9 p.m. Received Reselue of The
ARCHANGE. MICHAEL by George
Markov.

GREENWICH THEATRE. 01-838 7758 LEONARD ROSSITER IN SEMI-DETACHEE NEW OPENS FOB. 28. Press. Feb. 26 4 27 at 8.00.

MAYFAIR. 629 3035, 483 1031. (Green Park tyte.) Mon. Fri. 8.00. Sat. 5.15 and

PALACE. See 7.30 THE TEMPEST.

OPEN SPACE. 387 5969. Tues. to Sun. 8
BRIMSTONE AND TREACLE by Domis
Potter. "Deeply fascinating." Geardian,
"Irrepressible humour," Standard.

PALACE. CC. 01-427 5834.

Mon-Thurs. 8.00. Frl., and Set. 6.00. 8.40

JELIS CHRIST SUPERSTAR

By Tim Sice and Andrew Lloyd Webber.

PALADRUM. CG. 61-437 7373.

Twice Daily 2.45 and 7.30

DANNY LA RUE

AS "Merry" Widow Twankis in

ALFRED MANS SIABANAZAR

Dilys WATLING Boan MARSHALL,

and WAYNE SLEEP. "Ome of the bestdrassed at the Palladium for years." D

stagged at the Palladium for years." D

MITTON. SEATS AVAIL. FOR TODAY'S

PERFS. TO AVOID DISAPPOINTMENT
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PALLADHIM. March 25 for 7 pts. only.
Monday 7.30. Tyes. and Thurs. 8.00,
Wed. and Fri. 6.15 and 8.48.
The One and Only
800 HOPE
800K NOW 01-437 7373. PICCADILLY. From 8.30 am. 437 4506.
Credit card bookings 836 1071.
Mon.-Fri. at 8.00. Sets. 5.15 and 8.18.
ICCHT WITH
DAME EDNA
Bod a hapothul of cobbers.
Starring the annovingly successful
BARKY HUMPHILL
DAME EDNA GRACIOUSLY EXTENDS
HER SEASON TO APRIL 28.

PITLOCHRY Festival Theatre. Booking opens March 5 for 52th Season: May 11—Oct. 6. Send 52t for prog. 4 hotel Ist. Tol. (0796) 2580. "STAY 6 DAYS -6 SEE 6 PLAYS!" PRINCE EDWARD. CC. 01-437 6377. Evenings 8.00 Mats. Thurs. Sal. 3.00. By Tim Rice and Andrew Lloyd-Webber, Directed by Harold Prince. PRINCE OF WALES, 01-930 8857, Credit card bookings 930 0846. Mon. to Thurs, 8.00. Friday and Sat. 6.00 and 8.45. ALAN AYCKBOURN'S seasach-fit comedy TUDE OF TARCE "If you don't laugh, see me." D. Exg. A National Theatre Production.

RAYMOND REVUERAR. CC. 01-234 1593 At 7-00. 9 00. 11-00 pm. Open Sunday PAUL RAYMOND Groents THE FESTIVAL OF EROTICA Fully ab-conditioned 21st SENSATIONAL YEAR

ST. MARTINS CC. 01-836 1441.
Eyg. 6 00. Mathees Tues, 2.45. Sals.
S.00 and 8.00.
AGATHA CHRISTIE'S
WORLD'S LONGEST-EVER RUN
27th YEAR

2 p.m.

CLASSIC T. Z. S. A. Ondord Spiet. 536
O310. (Opp. Tottenham Counted. Tubel.
1: LAST 3 DAYSI - Elliott Gold. James
Brolin, Telly Savelas. (CAPERCORN ORN
(A). Cont. from 12.45 p.m.; SEARTS
CLUB BAND (I). Cont. from 13.15 p.m.
S. LAST 3 DAYSI Goldie Have. POOL
PLAY (A). Cont. from 1.20 p.m.
4. Cint Eastwood. EVERY WHECH WAY
EUT LOOSE (AA). Cont. from 4.50 p.m. CLASSIC. Leivester Square. 01-930 6915. Closed for Modernisation, re-death Thurs. Feb. 22 with THE HILLS MANS EVES (O CURZON, Curzon Street, W.1. 498 3737-ISABELLE HUPPERT VIOLETTE MOZIERE OD (English SubtRiva) Showing 48 1.13 (not Sun.) 3.40 5.03 and 8.30. LEICESTER S-VARE THEATER (030 5250)
PLAMIEN CHEN II (70. 500, 07005, 1,10,
4 AO, B.10, All Leuts bibbs, at Bes Office
or by post for 8,10 proc 300, 301 at prost
Sat and Sun. No Late Show Buokins. ODEON, Haymarket. (950, 2738/2771) MAGIC (7). Sep. parts. Wist 2,15, 5,15, 8,15. All seats tikele at Box Office of W Boxt. ODEON, Loicester Squara, (910' 6111) ASHANTI (AA). Sop. propt. Div. dor's open 1.45, 4.45, 7.45. All sept. bkt/s at Box Office or by post. ODEON, Marble Arch, W.2. (723 20112) Farrah Fawcett-Majors, Jeff Bridges Jr SOMEBOOY KILLED HER HERBARD, 60 Sep. progs. Wks., doors open 2.15, 9.06.

STUDIO 1 2. Oxford Circles. 457 3300.

T. An allister cast in Robert Algebra
A WEDDING (AA). Prog. 2.20c.5.16
7.55. Lett show Sat. 10.45 km, 765.

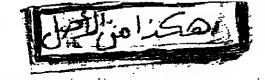
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RUGE



### THE ARTS

St. John's, Smith Square

# Operatick Shakespeare

by NICHOLAS KENYON

A not altogener appropriate eyes," sung with deceptive ease title for Ars Nova's fascinating by Judith Nelson) and the noble concert on Saturday: we heard declamations for Neptune little that was operatick and less that was Shakespeare. "From Tyrical). dear Shakespeare's honoured By contrast, Eccles' Macbeth dust " (as Dryden's Prologue to The Tempest put it) Restoration dramatists conjured up quite a ferrago of entertainment; in parvided the least excuse for choruses which out Dido Purcell masques and other music were are what most important the choruses which out Dido Purcell generously provided with most important to the choruses which out Dido Purcell generously provided with most important to the choruses which out Dido Purcell generously provided with most important to the choruses which out Dido Purcell generously provided with the choruses which out Dido Purcell generously provided with the choruses which out Dido Purcell generously provided with the choruses which out Dido Purcell generously provided with the choruses which out Dido Purcell generously provided with the choruses which out Dido Purcell generously provided with the choruses which out Dido Purcell generously provided with the choruses which out Dido Purcell generously provided with the choruses which out Dido Purcell generously provided with the choruses which out Dido Purcell generously provided with the choruses which out Dido Purcell generously provided with the choruses which out Dido Purcell generously provided with the choruses which out Dido Purcell generously provided with the choruse which out Dido Purcell generously provided with the choruse which out Dido Purcell generously provided with the choruse which out Dido Purcell generously provided with the choruse which are the choruse which ar

This concert presented three Shakespearian musicks for the stage (plus one oddity for the Locke's marvellously original Tempest interludes (given a rather lack-lustre per-formance): John Eccles' music for the witches in Macbeth (a first modern performance) and the Tempest music attributed to Purcell. But actually by his contemporary John Weldon, it now appears—which leaves a little musicological egg on the face of the scholar who called it Purcell's "most mature work for the theatre."

In fact Weldon's reputation deserves to be—and used to be
—much higher. Sir John.
Hawkins mentioned him in the same breath as Purcell for RSC, condensing plots and "sweetness of melody," and speechifying with great virtuo-indeed it was melody which sity: but Mr. Edwards screeching stood out in this performance, which one heard with new ears: St. John's is not my idea of fun the endless, florid tunes for or Shakespeare. Musically, a Ariel (especially "Dry those rewarding evening.

are what most impressed (Cathedral Music, 36 Ranalagh Gardens, London W6, have pub-Gardens, London W6, have published Grahame O'Reilly's new edition at £1.64—a bargain). The extra oddity was the setting of Hamlet's "To be or not to be" found in Pepys' diary, composed by ... ? It's a foolish little recitative; however nicely sung by Richard Morton; the accompaniment was revised and accompaniment was revised and played by Tim Crawford—the effect of the whole was

Ars Nova (led by Roy Good-man) played with more spirit than sophistication, while the singers, Cora Cappella, Sang vice rersa. It was good to have a firm conductor in charge of such an occasion: Graham Barber was elegant and effective. On the sidelines, Pethick Edwards and Peter Milne provided a two-man witches' curses in a half-empty

resolutely un-tragic.

**Wigmore Hall** 

### Music at Court

by NICHOLAS KENYON

Academy of Ancient Scarlatti, Music is the latest ensemble to nerata:" a group of pieces by set off on the nationwide Early Purcell, culminating in the vivid Music Network, and on Thursday they launched their tour with a become an Academy favourite; respectable, if uninspiring, Wigmore Hall concert. Economics do not allow the full-scale orchestral Academy to tear; this is a small chamber group of four plus the counter-tenor James there was more than the counter tenor than the counter tenor to the counter than the counter tenor to the counter than the counter that the cou Bowman. Programmes have a feeling that a routine was been designed to be fieldble, so being observed rather than different four venues may hear music brought to life. Monica

handsome and informative book demanded a sophistication of for the Folio Society, and of articulation and ornament which the Academy's companion eluded them. Huggett's Bach records—a useful holdall sonata movement was curiously formula, since it permits virinconsequential; it would have tually any music composed been good to hear some solo under court patronage to find a work from the gambist, James music by Monteverdi, Uccellini, ing, professionally performed; and an attractive, darkly but the regions deserve livelier coloured cantata by Alessandro fare,

"Infirmata, vui-Chacony trio sonata which has

Huggett and Polly Waterfield The concert's title was that of duetted with sprightly grace in Christopher Hogwood's recent the Purcell but the Couperin Here we heard Italian Ryan. It was a harmless even-

### Rare play at the Royal Court

neglected plays as well as to and will be designed by Robin present new ones, the Royal Archer. Court will present The London Cuckolds by Edward Ravenscroft (1614-1704) opening on February 27.

The play was written in 1681 and was by far the most popular of the twelve plays written by this lawyer-turned-playwright. Dealing as it does with alder-men of the City of London trying to escape the web of sexual intrigue woven by their wives, the play was a great success

Charles II and his court.

As part of the policy to revive Royal Court's artistic director.

Among the cast are Stephanie Beacham, Kenneth Cranham, Alan Dobie, Barry Stanton and Rossiter Hitch

Owing to influenza, Leonard Rossiter was unable to commence rehearsals as scheduled for Semi-Detached at the Greenwich Theatre, which was due to open on February 22. The production of David

Turner's comedy, in which Leonard Rossiter returns to Greenwich in a role he created The production will be in the at Coventry in 1962, will now the sad sideways slip into the literar hands of Stuart Burge, the open on February 28 at 7 p.m. minor key; the sudden quick-



Shope Shodeinde and Malcolm Fredericks

Bush

### Independence by B. A. YOUNG

a newly independent Caribbean island . . . Mustapha Matura has really written a folk-tale, with his old barman Drakes who loved the bygone colonial days and ends as a night-watchman, and his young waiter who thought they were slavery and ends as a prosperous farmer. The moral is not quite as clear as this might suggest, though. Colonial life may have been also and the may have been also as the new terms. slavery, but life under the new government is slavery too (the waiter is only a waiter because "the Department put you here, and here you have to stay"),

drink, she tips him \$1,000. Drakes (the inimitable Stefan

and slavery under a regime that is corrupt and inefficient. Allen, the waiter (Malcolm Fredericks), feels that if he only Fredericks), feels that if he only finishes, having indeed taken for Foco Novo is as good as had \$1,000 he could start farming. In an episode where Mr. really a serviceable one-act plot: designed by Adrian Vaux. Somebut Mr. Matura then adds an thing should be done about the round hole of his plot a form. of probability hard into the appendix in which Allen brings smoke-filled break in the second round hole of his plot, a former his girl (Shope Shodeinde) to act where the stage is set for Governor of the island pays a see where he once worked, and the short and not very interest-farewell visit to the hotel, now another political argument be-

island rather fast because she was involved with a black waiter, who was subsequently charged with having assaulted her and hanged himself. She has so implacable a conscience that now when Allen serves her a

Ralipha) has a row with the Head of the Department, a black Himmler named Harper (Ewart him that the state has nothing better for him than manual labour he burns the hotel down fatally unconvincing, though with, appropriately, a couple of the idiom is apt enough.

Molotov cocktails. Here the play The direction by Roland Rees

Once upon a time there were a state leisure centre, where gins, only this time with both two West Indians who lived in Drakes and Allen work. The parties on different parts of the a newly independent Caribbean. Governor's lady had to leave the independent side. The scenes between Stefan

Kalipha and Malcolm Fredericks are enjoyable, not only for the pleasant acting of them both but for the lively and expert way Mr. Matura has with West Indian speech. Mr. Walters brings the necessary blend of authority and inexperience to the part of Harper, who I hope is not characteristic of the New Caribbean, Michael Howard and James Walters), when he de-Mary Jones can't do much with fends Allen for walking out of the two relics of colonialism, his job, When it is made clear to for their dialogue, required to bring up some convenient facts at a rather unlikely moment, is

Festival Hall

### Curzon and Slatkin

by DOMINIC GILL

Orchestra's concert under the glauce. baton of Leonard Slatkin (who is Music Director of the St. Louis Symphony and the New Orleans Philharmonic) began rather glumly on Thursday with a routine account as curtain-raiser of Beethoven's Prometheus overture, and a decidedly undernourished performance from the orchestral point of view of Mozart's D major piano concerto K537.

The sound of the ensemble itself was undistinguished: it is rare indeed to hear the violin line of the concerto's first tutti so vigorously unphrased. Pale contrast to the soloist Clifford Curzon's live and supple shaping of the same movement —in the early pages there were some finger fluffs; but nerves soon settled. His larghetto, prettily elaborated and ornamented, sustained a line of marvellous purity and sim-plicity—simple never, but that simplicity which conceals the greatest art. His finale was a study in contrasting textures. light and feathery, crisp and bright. Slatkin explored none of Curzon's more delicate paths:

Philharmonic silver emphasis or shy rubato tained. The colours he drew from the scherzo, veiled and threatening, were very fine; there may be darker currents of After such inert orchestral Mozart playing, it was a sur-prise, and greatly welcome, to yearning, and darker sorrow too, discover a fine-grained and than he found in the slow movevivid account in the concert's ment — but its climax was second half of Rakhmaninov's glorious clear and broad. The big, piecemeal finale worked up

first symphony. Slatkin came suddenly to life, and took his players with him — the first movement was splendid, every bright, brassy light, and every dying surge, powerfully con-

New members for literature advisory panel

The Arts Council appointed four new members to its literature advisory panel. They are: Robert Gavron, a director of a printing firm; Elizabeth Jane Howard, the novelist: Miles Huddleston, a publisher and director of Constable and Co.; Dr. Graham-Nicholls, curator of the Johnson Birthplace Museum and literary secretary of the Johnson Society; and John Whitley, literary editor of the Sunday

an impressive momentum : real conviction here at jubilant in the huge final conversation between strings and The Susan Smith

Blackburn Prize The first annual Susan Smith Blackburn Prize has been awarded in London to Mary O'Malley for her play Once a

Catholic. This new literary prize of £1,000 (\$2,000) goes annually to a woman who deserves recognition for having written a work of outstanding quality for the English-speaking theatre.

The prize reflects the values and interests of Susan Smith Blackburn, an American actress and writer who lived in London the last 15 years of her life, She died a year ago, aged 42.

at present on loan there, a work

by Guercino. They would fill gaps in the gallery's collection.

Mr. Mahon is angry about the

Government's proposal to end

the "in lieu" provisions, the

practice whereby collectors can

offer works of art to the Govern-

ment in lieu of capital transfer.

disliked in the art world because

Switch

American radio

### Disco dominates the air waves

by FRANK LIPSIUS

city ordinance put an end to this form of "noise pollution."

If this source of spreading the disco phenomenon has been its place with the change in for-mat of WKTU, a former mellowthe station became the most listened-to in New York almost evernight. The development impressed radio people not only for the new audiences but also for the speed with which they found the station. There was no doubt that this was an idea whose time had come. Within a month, over a

hundred stations around the playing them is useless for country had imitated WKTU; at encouraging sales, Besides, the same time, the NBC network promotion people, used to the announced it was hiring the services of the programming discotheques a chaotic market advisors to WKTU, without where it would be easy to give

officials described their appre-bensions in making the change and therefore very little inducefrom a profitable, though unment to garner air-play, spectacular mode to the untried, The real question is we persistent bongo beat of disco. The real surprise is the time it has taken for someone to take the plunge after disco has trans-lated well to nightclubs, films and records.
The delay, I suspect, reflects

the same reluctance the record business has had to embrace disco. Though some companies, like TK (KC and the Sunshine Band), RSO (the Bee Gees) and Casablanca (Donna Summer and the Village People), quickly latched on to disco and did extremely well with it, most of the record business preferred to promote "punk" music to its over-publicised and embarassing demise in America,

The record companies did not just guess wrong. They wanted to see "punk" music succeed

What attache cases are to had a number of punk groups music; so such records were one segment of New York available to them in the United toned down or not produced society large transistor-cassette States through their British Still, the spectrum of sound fa machines are to another—notably the young people who comup by making a deal to distrination of radio by big band prise the messenger and itiner- bute Sire Records, which had playing pretty melodies. ant set, walking the streets and blasting disco music. Their disco cassettes also serenaded underground passengers till the beginning of this year when a beginning of this year when a become, the two major American labels would have dominated the record business more than ever.

Disco does not lend itself to eliminated, another quickly took such monopolistic control. Like black rhythm and blues before it, it is the sound of the streets. sounding radio station that and though records have to be changed to disco—and gave the promoted more than ever sound a shot in the arm com- before, any disco song can catch parable to the impact of the on with the right sound. Names film, Saturday Night Ferer, are less important than dance-from rather mediocre ratings, ability; hype is less important than hep.

Discotheques are not particularly popular among record companies for other reasons, too. Their disc jockeys are known to splice tapes, adding bongos and other instruments to make the songs longer and more danceable. Records are hardly ever identified and so routine of radio stations, find In extensive Press coverage of WKTU's success, station officials described their apprebensions in making the above.

> The real question is whether American radio will ever be the same again. for the past 20 years, the most popular station in any given area was the pop music station. It might not have been the most dignified or enlightening programme to listen to, but it was unique. It had its fast-talking, excited imitators in the off-shore pirate stations that forced the hand of the Government to allow commercial stations into Britain.

Their uniqueness lies in the breadth of sounds they encom-pass in one format. If people out there in radio-land buy Barbra Streisand and the Village People, then the station will play both. For the past years there has been a

Tim Powell, the programme director of an American progressive radio station, see disco and disco radio as threat to "traditional" rock 'n roll. He wonders whether the future of radio will be domi nated by disco radio's concern with beats per minute. Disci records are measured this way If all records end up being s measured, percussion will ride the air waves as brass and strings once did.

It seems hardly likely tha any given area could suppor more than one disco station since they would all end up sounding exactly alike. One disco station may beat out each pop music station, but the numbers listening to pop on al stations playing it far outweight the numbers listening to the on disco station in town. On the other hand, before WKTU most people thought the average tolerance level for disco music would be fulfilled by a Bee Gees' record played every half hour.

Except for the top 40 stations the rock stations have avoided disco music altogether. Progressive radio in particular—that nunderkind of the 1960s—has found disco anathema and described it in terms as harsh as "fascistic." They think it lacks the individuality of the progressive heroes like Bob Dylan, the tradition of folk music, and the prettiness of a lot of the female singers. Progressive stations did pick up on "punk" music and their eagerness to play it misled record companies into thinking they had found the new sound of the 1980s,

In a head-on clash, it is hard to tell what music will win. Progressive stations taken together have more listeners than disco, but the wave of the future may sweep over the ageing defenders of the past. The battle seems to line up with the upper and lower classes listening to their disco music in fancy clubs and the street while the middle classes defend rock n roll and their now dated progressive music in the warmth of just guess wrong. They wanted symbiotic relationship between their "dens" listening as their to see "punk" music succeed radio and record sales. The component speakers fill their more than disco. CBS already radio would not play outlandish lives with "meaningful" sound.



The Bce Gees

RUGBY BY PETER ROBBINS

# Has JPR Williams had his day?

for so long that the match between them almost invariably settles the championship. Judged by the standards

reached in the game in Paris marvellous game. both sides are still ahead of the other countries, although Wales most certainly are showing signs of the need for change. France won narrowly, 14-13, options.

a score that in no way mirrors the appreciable gap in attacking virtues. France could have won by a lot more had they taken the chances they created so cleverly, whereas Wales never really looked as though they would score anything but a Ploys scramabled try.

However, it was the finest match we have seen anywhere for a long time because it was France's excellent regrouping full of venture and there was tremendous courage from both teams. Above all it was a game of daraling speed, and in that particular asset lay the main difference between the teams.

France had to make the game mobile: against such a gnarled collection as Price, Windsor and Faulkrier. Yet they also had to be unflinching in the forward exchanges, which reached a new intensity. France kept up their pace and did not shirk the for-

for the rest, who followed obediernly and sacrificially, If

WALES AND FRANCE have ever one man influenced the dominated the home rugby scene course of the game it was he. He first destroyed Welsh movements and then created innumerable opportunities for his side. Joinel, also, had a

But it was the collective speed to the breakdown and the exemplary setting up of the ruck that gave France so many

Paparemborde and Rives stood away from the line-out to make the first breach. Vaquerin also punched through. But whotide in their wake.

There were few chain movements by the forwards, but substantial lead. inevitably brought in the Welsh back row.

To counter Martin, Clegg and Quinnel, France had a variety of ploys at the line-out, but because they tapped poorly they largely negated their originality. They had a hard time of it at the set, where Price frequently collapsed the scrum with impunity, and France also had difficulty in controlling the channelling of the ball, so that Gallion was caught several

times by Holmes. Rives is a comparative new-comer to captaincy, but his fanatical drive set the example variety. The same was true of Aguirre, who is now the finest normal play was utterly disto hint at it, J. P. R. full-back in the world. His line rupted. What should have been time is drawing near.

kicking was long and accurate, a preparatory phase, in fact but it was his making of the became a perpetual rearguard extra man in the quick threequarter movements that gave France's attacks such piquancy. Noves, France's left wing, also

disconcerted Wales with some twisting counter-attacks, but the game was not won solely by Ruthless French tactics com-

pletely eliminated Wales' strongest asset, their counterattack from broken play. Whenever a Welsh player went forward there was a blanket defence to make the tackle. This numerical advantage was essential to France's hopes. The French did not have it all their own way, and they

were never able to build up a Wales forward discipline helped them to survive the holocaust of the first 20 minutes, but one had the distinct impression that they were playing on borrowed time. Wheel was

missed for his strength in the mauls, but Martin almost com-pensated for his absence with a truly magnificent display. Squire and Ringer both got through a tremendous amount of defensive work, but none of the Welsh back row had the

time to involve themselves in the rare Welsh attacks. For once the Welsh forwards were on the receiving end, and so the pattern of the team's

Sad for J.J.?

Even the Welsh tactic of wheeling the scrum to get at Gallion finally came unstuck. The Welsh forwards had all the right reflexes but as a unit they were that much slower. Holmes, therefore, did not

have the options that Gallion did. He made the best use of what he had. Arguments were raging late into the night about Holme's pass, and, true, it is a little slow. It is, also, long. But not many scrum-halves could have taken the battering that Holmes did against the big

French forwards and still bounced back. His was a game Under the new system, drawn of outstanding courage. up by the Treasury, an owner Nor is their Welsh concern at fly-half, where Davies kicked the sale of his artistic holdings well except for the restarts. and his executors will pay in The main worry must be, first, in the inability of the the normal way.
This is considered a simplified system by the Treasury but is

Welsh backs to attack at speed, and secondly, in the wayward manner both Rees and J.J Williams aligned themselves in defence. There was utter panic when the ball went to Gourdon. on the right, and it was he who scored France's first try. It seems likely that J. J.

to hint at it. J. P. R. William's

the intrinsic value of pictures in favour of the purely financial consideration of how much they can make in the salerooms. Williams will go and, although abroad to be sold, it may sound blasphemous even Some people also

a famous collection of Italian poorer provincial galleries. 17th-century paintings, has decided that on his death it Mr. Mahon said, "The outlook of the old system was essenshould be sold abroad in protest tially that works of art had a

new provisions change the basis

Angry collector will sell abroad

National Heritage Fund. The collection of 70 pictures of that entirely and make it purely financial. and 50 drawings, was to have "In that case, include me out. been offered in lieu of tax to There is more to art than just museums in Britain through the money. But if they want it National Art Collections Fund. that way I will render unto Eight or nine of the works aesar the things that are have already been sought by the National Gallery and one is Caesar's." He intended to change his

will, at present in favour of the bulk of the collection remain-ing in Britain. Now, if the proposals became law, his executors would be instructed to sell the pictures abroad after his death "to raise the maximum amount they can for the Treasury.

I just wanted them to be

acquired as painlessly as possible by the nation but there comes a point where one has to take a firm stand on a matter will be responsible himself for of principle. It is something of great importance to me.

"If you regard everything in terms of money these pictures will raise a great deal—I can tell you that without any doubt -but the country will lose what it tilts the balance away from I think are great works of art. Mr. Mahon is an expert on Italian 17th century works. He began collecting in 1934 when college. many of his pictures did not com-It also presents the daneer mand such prices as they would of important pictures going now fetch. He was a trustee of the National Gallery for 14

Some people also feel that the years from 1957.
ew provisions will favour major Mr. Hugh Leggatt, secretary new provisions will favour major Mr. Hugh Leggatt, secretary with other institutional because national collections, if paintings of the pressure group Heritage in interests, including those of desirable.

against proposals concerning validity in themselves, but the Britain.
the Government's new £15m new provisions change the basis "We We will do all we can to very concerned indeed.

MR. DENIS MAHON, owner of stay here, at the expense of Danger, said: "This causes us get these proposals changed. A the greatest possible concern. trustee of one of the greatest The collection is the finest of its houses in the country has kind in private hands, and it already been on to me about would be a disaster if it left the future effect of the in-lieu provisions. A lot of people are

### More talks today on plan for student fees change

BY MICHAEL DIXON, EDUCATION CORRESPONDENT

THE GOVERNMENT'S scheme academic staff. to make students' unions more The union wants a national accountable for their £13m and local organisation in which tions in London today.

The Education Department, local authorities, university vice-chancellors and the National Union of Students will meet to discuss a plan to end the automatic State payment of fees ranging from £50 a student in some university unions to 50p A HOLIDAY airline's hunt for a head in small colleges.

The Government's scheme is of its university, polytechnic or

The National Union of it said.
Students terms the plan a In a ruling yesterday the "recipe for annual turmoil." It tribunal criticised the job badly in competing for funds

income from taxpayers' funds it can join other groups in enters a new stage of negotia- specifying how much each local umon should receive

'Sex bias' in airline's job offer

top executive was "tainted" by sex discrimination, an indusfor a minimum of about £15 a trial tribunal has ruled. Former head to be paid through local RAF navigator Mr. Edward education authorities, leaving Gorman, Britannia Airways' each student union to negotiate personnel controller, was so extra finance from the budget anxious to pick a man for the job that his attitude was a deterrent to women applicants.

fears that local unions will fare description for the £5,000-a-year post of personnel manager because it specified

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Monday February 19 1979

# Changing the House

THE HOUSE of Commons today of the recommendations in their begins a two day debate on its entirety in order to applaud the own procedure. The starting objective. The present compoint is the Report from the mittee system in the House of Select Committee on Procedure Commons is almost wholly produced as long ago as last random. It is unclear, for August, the delay in holding the example, why there should be debate being itself a comment a committee on overseas aid but on what the Government thinks not on agriculture or education. of Select Committees. It is un- in fact, committees on both likely that there will be a-vote those latter subjects have been at the end and there is almost tried but abandoned because it certainly no time left for this was too difficult to establish a Government to do anything modus rivendi between the MPs about reform, even if it wished to try. Yet the debate is important, none the less.

### Broad spectrum

The Procedure Committee Jo Richardson on the Labour along. left to Mr. Nicholas Ridley on the Tory right-and included Quality Mr. Enoch Powell, sometimes regarded as the most accomplished Parliamentarian of the day. The chairman was the intellectually distinguished Labour MP, Sir Thomas Williams, The Committre's report is thus probably the best statement we have about what the House thinks of its own workings.

### Deference

for the extension of the Com- House, mittee system so that every major government department committee. In the long run, the report says, "the departmentwell become the 'eyes and ears' of the House in relation to Govthe attention of Members to political consideration and providing Members with advice and informed comment which can nourish the work of the House in scrutinising and criticising ne activities and proposals of

One does not have to approve workings.

and the departments concerned. That should never have been allowed to happen.

Equally, where committees do exist, their purpose is not always obvious. There are doubts about how far they can would never have been set up if demand evidence. There are there had not been fairly wide- limits to the ways in which they spread dissatisfaction among can call on outside advice and back bench MPs, let alone out- their reports frequently go unside the House, about the way noticed by the House of Parhament is run. Its terms of Commons as a whole. It is also reference were limited to con- the case that existing comsidering "the practice and pro-mittees do not always make the cedure of the House in relation most of the opportunities that to public business" and to make are available to them. Too often ing recommendations for "the they fall to ask the right quesmore effective performance of its tions and, even where some functions." It could not there- information is elicited, they fail fore go into wider questions of to follow it up. There is just constitutional change. But its a touch of undue deference to membership embraced a remark- the Ministers and senior civil ably broad spectrum-from Miss servants who agree to come

The Procedure Committee recommends dealing with some of these problems by integrating the Committees more into the Parliamentary system. Not bodies, but they should have more powers. They should be allowed to take on outside advisers and pay them. There should be established ways of ensuring a debate on the com-Its basic recommendation is, mittees' findings in the full It is quite likely that such

reforms, if implemented, would is watched by a Parliamentary he beneficial, though one also has to remember that the effectiveness of any committee ally-related committees may depends more on the quality of its membership than in the of the House in relation to Gov-particular procedure. There ernment departments, drawing may be better and more comprehensive ways of improving matters which require further the performance of the House of Commons. Yet, in the end, the House can only reform itself. It cannot be done from outside and these are the only proposals we have. The importance of the two day debate will the Executive." That, at least, be in revealing what the House as a whole thinks about its own

# **Testing French**

THE PROBLEMS of the French deep-seated traditions, and mass steel industry, now causing serious labour unrest in the Lille region and Lorraine, are by no means unique. Other West European countries, most notably Britain and West Germany, have had to grapple with similar crises and in France uself the ailing textile industry Indeed, the international nature of the adjustment problem has been repeatedly stressed by the French Government in its bid to win acceptance for its

### Local impact

Other points of the Government's case also sound familiar. The steel industry, indeed French industry as a whole, it says, cannot remain competitive in today's changed international economic circumstances without major surgery. It is a point of view held all the more strongly in the light of the new ism" that are being so actively pursued by M. Raymond Barre. the Prime Minister. While accepting that its plan to close steel plants will cause shortterm hardship, the Government maintains that the long-term consequences will be more, not again, both Gaullists and Comless employment. Besides, Paris points out, prospects for overall growth, investment and in-dustrial output are all now looking up.

All that may well be true. It is not, however, the sort of reasoning likely to impress Six months people about to lose their jobs in areas in which there is ar the moment virtually no other employment. The local concentration of the 23,000 jobs at stake - 7,000 of them, in the small steel town of Longwy has exacerbated the impact. As "European" policies in preferlast Friday's 24 hour stoppage showed, feelings are running extremely high and there seems little doubt that the Government, of least initially, underestimated the bitterness that its plans would cause. Its attitude nas appeared detached and over-confident.

### Sovereignty

The dangers are all the greater in that while the probtions are part of the country's ment's economic policies.

protests, usually quickly infiltrated by extremists, are always potentially explosive.

The signs are that the Govern ment is now increasingly aware of the need to defuse the situation. Talks have been arranged with the unions and fresh measures, including carlier alternative employment, have been offered to cushion the cuts. addition, President Giscard d'Estaing is making a special effort to attract Ford's new European plant to Lorraine. If he were to succeed. It would be a major feather in his cap.

A solution is all the more urgent in that the steel crisis has erupted at a time when M. tilscard d'Estaing is already under fire from his political enemies on a number of other fronts. For the Left, the steel rundown is further proof that the Government is deliberately favouring private enterprise at the expense of the workers. The Gaullists, under M. Jacques Chirac the President's nominal allies, have been losing no opportunity of adding to his political difficulties and are now pressing him to reflate in order to create more jobs. Once munists are playing the card of national sovereignty stoking the fires of chauvinism with allegations that the steel crisis is all the fault of the Germans, the European Community or both.

time on his side. The next Presidential election is not until 1981. For his part, he is confident that direct elections will strengthen his power base by showing massive support for his ence to the increasingly nationalistic attitude of the Communists and Gaullists. The three years that M. Barre gave himself to put the economy right still have six months to run. If he has not yet totally succeeded, he has at least some progress to show. His decision to let prices find their own levels, for instance, has not led to the feared inflationary upsurge. The crisis in the steel lems of the steel industry are industry will certainly need common to many countries, the careful handling, but it has not nature of protests in France is yet disproved all the assumpnot. Violent street demonstra- tions underlying the Govern-

# Peking's great gamble in Vietnam

HTNA HAS taken an enormous gamble in Vietnam, risking at one and the same time that the Russians will be tempted to retaliate, its new friendship for Peking to cool. China calls its incursion no more than simply a punitive strike, announcing that Chinese troops do not intend to occupy Vietnamese territory. But a deliberate move of this sort will confirm the worst "yellow peril" fears of the Soviet Union.

kind has not been characteristic of the Chinese in recent years. In 1978 they began sabrerattling over the issue of the Senkaku Islands in the East they dispute with Japan. But in spite of the important oil potential of these tiny reefs, they backed away from trouble to ensure the signature of their long-term trade agreement and treaty of friendship with Tokyo. In 1974, while North Vietnam was preoccupied with its war against the South, the Chinese swooped on the Paracels, a small group of islands off Vietnam but claimed by China. They too are important for offshore

Their only previous large scale military action since the invasion of Tibet and the Korean war was against India in 1962, over disputed border territory. So successful was that lightning strike that New Delhi lost face throughout Asia and its military machine had to be completely overhauled, a precedent which the present Chinese high command may well have had in mind.

seen, but Moscow is bound by certainly not unprepared. the Treaty of Friendship with Vietnam, signed last summer. which includes a clause on defence. In any case, while the Russians might well want to avoid actual fighting, they cannot be seen to be failing to support an ally in an area where rivalry between Moscow and Peking is already intense. There are hundreds of Soviet military advisers in Vietnam, Military intervention of this and four Soviet warships off the Vietnamese coast were recently

> Confrontation between Russia and China cannot be ruled out. Analysts have predicted some kind of action along the Sino-Soviet border, possibly in tract the Chinese. The Russians have 41 divisions there, with something like \$55,000 something like 650,000 men in a state of readiness. While Chinese numbers may approach these, their equipment is obsolescent, lacking modern anti-tank weapons and helicopters. In these conditions the

other vessels.

lesson, particularly when they see Chinese leaders like Viceup alarmingly. In mid-January the Chinese created a new

their new relationship with the West by rousing latent anxieties, some of them very recently lulled into tranquility. The process of normalisation of relations with the U.S. is based on a degree of American trust that Peking will not attack Taiwan. While that would be far more difficult militarily than the present action in Vietnam, because of the 120 miles of sea between Taiwan and the mainland, the Vietnam strike brings joined by a missile cruiser and the question of Peking's longterm intentions into the fore-

# Cold water on

Chinese move will fighters. certainly pour cold water on While the Harrier is generally the new warmin between accepted as a mainly defensive Chinese and Americans that weapons system and an old one Vice-Premier Deng's recent at that (since the Chinese are Chinese and Americans that wisit to the U.S. engendered. due to get the mid-1960s verwhile President Carter at no time endorsed the Vice-Premier's constant warnings sensitive to any sale of western Russlans must be sorely Premier's constant warnings sensitive to any sale of western tempted to teach the Chinese a about the threat of war from weapons to Peking. The Chinese the Soviet Union and main- are pressing hard for other Penh. It was set up early this tained constantly the need to military equipment, but even if Premier Deng Xiaoping (Teng sign a new Strategic Arms the Harrier goes through be-Hisao-ping) constantly accusing Limitation Agreement with cause it is tied to large indus-Hisao-ping) constantly accusing them of constituting the world's Moscow, the visit did produce a trial deals already in the pipe-hiegest threat to neace. Even a Sino-American bonhomic which line, the atmosphere in which biggest threat to peace. Even a Sino-American bonhomie which minor incident in the present must now have been rudely to sell further items could fevered atmosphere could flare disturbed. The President has become less favourable. Even pursued a scrupulously even- China's plan for purchasing maintaining a strong rearguard handed policy in what he has military administrative area in said about both Moscow and Xinjiang, and have withdrawn Peking, by criticising the conflict in Vietnam escalates. The civilians from the border areas, Vietnamese invasion of The Chinese intention appears new

Soviet Union remains to be by the Russians they are the Chinese action in Vietnam, against Vietnamese border posts expected. White Heng Samrin

The Chinese have imperilled many of whom are already worried about leaving Taiwan country of the border area and in doubt and the Chinese have without a U.S. defence move as confirmation of their superior fire power, the Chinese popular, but feeling against the deepest suspicions of Peking. That could cause delays in getting through the logislation to setting up the new informal links between Washington and Taiwan, and worse delays, particularly if the sudden strike turns into a simmering border war, to legislation benefiting trade and contacts with China. Nor is the incursion an

auspicious curtain-raiser to the visit of the British Industry Secretary, Mr. Eric Varley, to Peking next week. He hopes to controversial contract for 70-100 Hawker Harrier vertical take-off

cause it is tied to large induswestern civilian technology could run into trouble if the

the immense experience of the promised to continue aid. The Vietnamese and their much Pol Pot Government was unmove could go badly wrong. The traditional enemy, the Viet-Chinese are inexperienced in namese, is strong enough in modern warfare and while no Cambodia to give the guerrillas one denies their guerrilla capa-cities this type of attack is much to have some future as a more than a commando raid. possible rallying point for Cam-It remains to be seen whether they have the requisite transport, arms, and air cover. If bodia the Chinese have picked

In the past month the Chinese have built up their forces along the Vietnam border to somesign not merely a series of thing like 100,000 men, sign not merely a series of a new commander with Korean agreements for the sale of in-agreements for the sale of in-war experience and, according to Hong Kong reports, moved about a third of their fighter aircraft strength to the area. These troops have been reinforced by units not from trade and contact. China's northern borders, but from Fujien Province, opposite

warfare.

Taiwan. Most of the Victnamese army is at present supporting the new leadership of Heng Samrin in the Cambodian capital, Phnom year after Cambodian rebel forces, strongly supported by the Vietnamese, had invaded and expelled the previous Pol Pot leadership. Pol Pot men took to the mountains in the southwest, where they are apparently guerrilla action with Chinese

The guerrillas are giving the ew Cambodian Government

The full reaction by the so although they are outguined Cambodia at the same time as to be a swift surgical strike much more trouble than was But even liberal congressmen, and towns, taking only a few seems to control the towns, the days. However, given the hilly countryside still remains partly Vietnamese tied down in Camthey do not, they are likely to a good moment for their own get stuck in conttinual border retaliatory action.
But in broader terms Chinese

policy in South-east Asia has been counter-productive, familie existing historical antipathies.

Among the countries of

South-east Asia, the image of China as a peace-loving neigh-bour will have taken a hard knock. China is trying to con-vince these countries of the mutual advantages of expanded

Although it may not be diffi-cult to see why the Chinese decided on a superficial level it was timely for them to take a swipe at Vietnam, they have clearly made an enormous gamble. One has to assume that either they have not thought the issue through or that they thought the gamble worth all inherent risks. For the risks are great. It has taken the Chinese 17 years to mend their relations with India after their 1962 strike: 17 years of faterehostility between China and Vietnam would make the area a dangerously fertile trouble

Colina McDougall

# As seen in Moscow and Hong Kong

MPERIAL CHINESE rulers who occupied Vietnam for 1.000 years and made repeated attempts to annex Vietnam in the last 900 years have been replaced by a Communist Party, but in Vietnamese eyes the Chinese of yesterday are no different from the Chinese of today. Seen from Hanoi-where major historical sights include temples dedi-cated to the national heroes who fought against Chinese invasions—the Chinese incursion must seem like just another episode in a historic

In fact over the last two months Hanoi's domestic propaganda has stressed this continuity of history to explain the conflict as well as to hoost the country's morale. Time and again in the past, the propagandists said, the Vietnamese led by the legendary Trung sisters. Hanot reached crisis point when Ly Thuong Klet and Le Loi Ly Thuong Klet and Le Loi in a Blitzkrieg attack this have defeated enormously January the Vietnamese and superior Chinese invaders, their Khmer allies ousted the people under the "correct leadership" of the Vietnamese Communist Party would certainly defeat new Chinese attempts to dominate Vietnam.

Pol Pot regime from Phom Phen and seemed to achieve the goal of a Hanol-dominated Indo China.

Hanol felt sure that Peking would not go to war with Vietnam.

This simplistic historical During the Vietnam war involving the Americans, Hanoi's relations with China were claimed to be as close as "lips and teeth" supplier of arms, and for Peking a Vietnam fighting the U.S. was a major bulwark.

With the beginning of ping pong diplomacy and the Sino-U.S. detente there was a nations in Asia, although it did. not become apparent until the end of the Vietnam war in 1975. Then victorious Vietnam with its powerful army and an ambition to dominate the whole of Indochina turned into a major rival on China's southern flank. The fact that the Soviet Union was willing to back Vietnam's vanguard role in southeast Asia made Vietnam into all-the more dangerous a neighbour for the Chinese:

the Vietnamese Pol Pot regime from Phom Phen

would not go to war with Viet-nam for the defence of the explanation, however, only universally condemned Pol Pot touches a part of the conflict. regime. Besides the Vietnamese

for the simple reason that for also felt that despite the numeri- to removing this threat. Vietnam China was the major cal superiority of the Chinese supplier of arms, and for Peking army. It is a flabby and poor whose most recent experience of full scale war was in Korea in the 1950s.

The Vietnamese also felt condramatic change in relations fident about the sophisticated between the two Communist tanks, aircraft and missiles they tanks, aircraft and missiles they possess compared with China's largely antiquated equipment. The Chinese incursion across Vietnam's border has disproved part of these calculations. Coming days will show how well founded is Vietnam's feeling of military superiority. Many observers feel that the

Initial Chinese advance might turn into a very costly operation days. if the Vietnamese cut the path of the Chinese retreat through Conflict between Peking and mountain passes by outflanking movements of their regular units and massive use of air strikes.

### Nyan Chanda

THE SOVIET promise to bonour obligations under the Friendship Treaty with Vietnam does not mean that the Soviets will attack China, There is little doubt, however, that the situation is escalating dangerously.

calculated that China was too The Friendship Treaty obliges ritory for six weeks before. As the Soviet leadership conheavily committeed to its the parties to consult in the withdrawing, has been cited by siders its options, the potential modernslation to risk an armed event of a threat or attack. Soviet and Western analysts seriousness of the situation has

conflict with Vietnam. Hanol against one of them with a view alike as the relevant precedent been grasped by many Soviet also felt that despite the numeri- to removing this threat. for the punitive attack on citizens in Moscow. They are This is not the same level of Vietnam. commitment as exists for an

fighting force led by old generals attack on a Warsaw Pact country, which is taken as an attack on the Soviet Union itself, but in the face of a direct appeal for help to the Soviet Union from Vietnam, the Treaty is certain to necessitate Soviet counter action of some kind.

Chinese incursion before the Soviets have time to organise a military response. The Soviets probably feel obliged to take action against China but their responsibility will be lighter if Chinese troops have left Vietnamesa territory within a few

would be to instigate a few and China are full of disputed treaty with islands and with 44 Soviet diviestablishment sions along the frontier there relations with the U.S. is no shortage of opportunities for creating incidents.

indefinitely and the Chinese over Vietnam particularly now invasion of India in 1962, in while China is comparatively which the Chinese occupied ter-

for the punitive attack on

The danger in the present situation, however, is that the Chinese could get bogged down in flerce fighting in Vietnam and that the pressure of events could draw all three countries into applying ever greater measures of force, not exclud-The best hope for limiting the Soviet incursion into the Soviet reaction is an end to the Chinese province of Sinking. The Soviets do not want to

U.S. or the chances of conclusion and ratification of a new Strategic Arms Limitation Agreement. They also have as much reason as any country to fear a long ground war in Asia. Under those circumstances, historically rooted. This has the worst the Soviets might do been exacerbated by the success of the present Chinese border incidents. The rivers leadership in courting Yugo-which divide the Soviet Union slavia and Romania, the peace diplomatic

upset their relations with the

Just as the Chinese apparently feel the need to teach Vietnam Soviet analysts believe the a lesson over Cambodia, the Chinese have no intention of Russians would almost certainly occupying areas of Vietnam like to teach China a lesson

hening that the situation will be brought under control.

A top Soviet official on Chinese affairs, in an interview with the Financia Times two. weeks ago, emphasised that the Soviet Union considers its Friendship Treaty with Vietnam as a political not a military treaty. Clause Six, however, calls for consultations in the event of any attack on either side.

'Re also underlined that the Soviet Union did not think that China would risk all out war Vietnam: shows that one has to fight Vietnam seriously or not at all This would require China to throw 2m or 3m broops into Vietnam. Not maly would they be foolish to start out war would also divert badly needed resources needed for the four modernisations and would damage Chinese reputation in needs an attractive image.

In spite of this, however the official made clear that the Soviet Union and its ally Viet nam expected China to concentrato troops and he added that "irritationg conflicts along the Vietnam frontier were pos-

David Satter Authory Robinson

# MEN AND MATTERS

### The old block about new chips

If there is one attitude which many British company direc-tors share with trade union leaders, it is a deep suspicion of the silicon chip. A high-powered study is about to start, investigating why some indus-tries still fight shy of seeking ways to use micro-electronics. Sir Charles Carter is the driving force behind the study. He is chairman of the research and management committee at the Policy Studies Institute and two years ago headed the controversial inquiry that urged-in pursuit of technological efficiency—the dividing up of the Post Office.

Carter tells me that the new investigation, costing upwards of £100,000, will not depend upon government funding. "Governments tend to attach conditions to their money. We

" Surely that's not all he

brought back!"

M. Giscard d'Estaing still has

shall be seeking answers to was chided by the Comptroller managing director at Union, ex-

The Policy Studies Institute will not concern itself with the socal impact of micro-processor Carter says there is enough research going on already into effects upon employment and styles of work. In immediate control of the

study will be James Northcote, a senior fellow at the institute. "But this is not going to be a piece of academic research," says Carter—formerly Lancaster University's vice-chancellor. "It is a very urgent matter indeed. We must find out why British firms do not move as quickly as foreign rivals in the acceptance Carter has a perspective on

the problem: 20 years ago he was co-author of a report on innovation in British industry. Since then, things have got no hetter. If a sector of industry was behind then, it is further behind now."

clever at inventing things, but poor at implementing them. Quite a few other countries way," said Carter drily.

### Open house

On the principle, it seems, that every home should have one. the Open University will be soliciting for students at the forthcoming Ideal Home Exhibition. The idea of having a stand -to explain the university to visitors in search of the latest mod. con.-is something completely new.
"We are not quite sure what

we are letting ourselves in for," admitted a brezy spokeswoman at the OU's London region headquarters. "It is a public relathe public at the exhibition what they can do at home." No information was forthcom-

ing on the cost of the exercise.

some questions they may not and Auditor-General for laxness plains that it is a basic revolu-want asked." In its financial affairs. tion to introduce video

All at sea

### A Malta conference, costing about £1m, has run into a storm over the amount the host country is willing to pay its own staff. The dispute has provoked so much domestic acrimony that . Premier Dom Mintoff has dis-

the proceedings. The ousted executive secre-tary, Chevalier Paul Naudi, is a permanent secretary in the island's administration. He is now so enraged that he is threatening to "expose" Mintoff's style of running Malta at a news conference in

. The gathering is designed to promote cultural, economic and behind now."

Is it not true, I asked, that we ranean region. But so far, have always been uniquely Naudi's dismissal has only been the prelude to quarrels over the status of North African states invited to the get-together. The like to see themselves in that Soviet Union demands that they should only be observers; Mintoff insists they should be

All in all, Malta's lavish outlay on plans to present itself as the new magnet for international conferences is off to a tricky start.

### Past discounted

When Union Discount moves back this morning into- its Cornhill home—after a £5m four-year refurbishment-it will be "saying goodbye to the quill Brotherly advice pen era." Hardly surprising, you might think, for a company whose daily "plusses and minuses" are around £500m. . But the discount houses have

had a fondness for the old ways.

Only last week the university Richard Petherbridge, senior

tion to introduce video terminels into their operations. The market has changed tremendously in the past five years," he says. "So we are keeping up with the game."

Despite computerisation, with the "position keeper" using a TV cameras relaying the posi-tion in the book, Peterbridge Premier Dom Mintoff has dis-missed the man appointed by company more than 30 years the 35 nations involved to run ago, straight from school.

### Taking and paying

Sir Keith Joseph's favourite proverb is Polish, so he says. This is how it goes: "Take what you like," said God, "Take it and pay for it." Intriguingly enough, it is also the favourite quotation of Mrs. Shirley Wil-liams, the Education Minister only she claims it is Spanish Both of them supplied the proverb to a book of sayings

issued some years ago for charity and is still going the rounds. A reader has asked me whether, in view of its topicality, one or other might not like to put it forward as a General Election slogan for their respective parties. Chivalry restrained me from

teasing Shirley Williams with such a question. Joseph replied: "I think it is really more suited for reflective speaches than as part of a manifesto." Was it Polish or Spanish? "Proverbs tend to encapsulate truths which are widely perceived," he responded senten

This purgent place of graffiti has been reported from a Birmingham factory: "More haste,

Observer

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# FINANCIAL TIMES SURVEY

Monday February 19 1979

# Networks making a big impact

By Max Wilkinson

THE POLITICAL mind, confronted with the idea that computer networks can be a substitute for roads, is likely to experience an understandable

However, it is a serious idea which is being put forward increasingly by analysts of com-puter technology; and it is not particularly visionary. The Americans have even coined a portmanteau word for this in the reduction of costs which fusion of computing and will put the equipment and ser-communications technology, vices within the scope of a wide communications technology, vices within the scope of a wide compunications," which would range of businesses. Indeed, have delighted Lewis Carrol, computer networks are already

A major report on data processing published last year by the Erench Government ("L'informatisation de la to a considerable extent on the société") coined its own special price of oil. term telematique to describe the phenomenon.

Britain, however, the In Britain, however, the political discovery of the micro-processor and its potential proportion of the world's consignificance has tended to divert sumption of petroleum is used public attention from this other in transporting people who trend which, in the long term, simply want to exchange information, much of this communications are another in the form of

computers to enable them to routine character cut down.
communicate with each other is Aiready in the U.S. the netnot novel. The importance lies works for carrying computer

# THE COMPUTER INDUSTRY

Computers are rapidly bringing revolutionary changes in the ways people communicate and do business. As the cost of computing power falls, the intense competition between manufacturers is accelerating the race to develop new applications which, eventually, will make the computer as common as the telephone.

bave delighted Lewis Carrol,
The term is perhaps too odd to
survive in Europe, but the ideas
behind it are taking root fast.
The fusion is, indeed, expected
to bring revolutionary changes
in the way people do business
within a few years.

A major water would
range of businesses. Indeed,
computer networks are already
beginning to change business
practices and to make their
impact on society as a whole.
Indeed, Mr. James Martin, a
former IBM engineer, and now
one of the best known writers
on computer one of the best known writers on computer networks, points out in his book "The Wired

### Exchange

ment of cheap communications way or another, in the form of between cheap computers. Cer-tainly the production of where face-to-face confrontation-mass-produced micro-electronic is not essential. Executives often circuits will be one of the major have to travel to a particular elements causing the reduction office merely to gain access to of costs, but even the most complex of these miniature circuits were all stored on a computer will be only the building blocks network which could be of much more impressive inspected through the telephone arrival travelling could be tructures. system, travelling could be By itself the idea of wiring up reduced and meetings of a

data, particularly Telenet, are posing a challenge to the physical transport of surface mail; since large sections of business communications can be put in the form of computer data and shifted around the country quickly and cheaply.

Competition will be intensified

by the new satellite services, particularly the U.S. satellite Business Systems network which is jointly owned by IBM, Comsat and Aeina Casualty and Surety. It has received a licence from the Federal Communications Commission to offer leased data communications channels over the U.S. continent starting in 1981. This venture and others projected by companies such as Xerox and ITT have important implications for the whole communications and com-puting industry in the U.S. and in the rest of the world.

M. Simon Nora and M. Alain-Mine, author of "L'informatisa-tion de la société" comment: 'Their power and universality, accessibility and transmission range will make communications satellites the 'imperial high-ways' of the future. If IBM dominated satellite transmissions the company would transcend the role of a mere manufacturer: wittingly or un-wittingly, it would participate in world government. It has everything to become one of the great

world regulatory agencies."

. By the mid-1980s a new generation of much more powerful satellites is likely to be available, capable of transmitting television programmes direct to rooftop receiving dishes across large sections of the world. These big satellites could just as easily be used for sending vast quantities of data which could be received in a similar way. Since any large company could easily put up a receiving antenna, the system poses a significant threat to the current monopolies of all the present telecommunications authorities (PTTs) in Europe as well as in

### Consequence

The expected consequence is that data communications will become much cheaper. The analysts of SBS Publishing, of San José, California, for example, predict that the cost of digital communications will be reduced by a factor of 10 in the second half of the 1980s. At the same time local links will be greatly improved by the use of modern high-capacity lines including optical fibres (bairthin threads of glass which carry information in the form of a high-intensity pulsating

advantages of

continental and transatlantic satellite links clearly will be seized first by the larger multinational companies, which will use them as main arteries for internal communication. However, the same principles apply to systems used by much smaller companies for a computer network all in one building can function in just the same way as if each of the different machines were thousands of miles apart. The main point is that networks are becoming

The reason is that the continual fall in the cost of com-puting (at about 20 to 30 per cent a year) is making the economics of small local processors increasingly attractive.
This is a reversal of the trend
of the 1980s when all computing functions tended to be concentrated in a single department based on a relatively expensive large computer.

more important than machines.

To cope with many different types of computing task, a batch system was used. For example, payroll accounts would be processed together, at a par-ticular time in the week. Other batches of work would be processed, ali in regular order. The result was a rather cumbersome series of systems for entering and organising data to sult the

Batch processing is still commonly used, especially in large become cheaper to use. computer installations, but it One clear implication for the \$30bn world computer industry is that the emphasis of the marhas often put considerable strain on company organisation. It is therefore tending to be replaced by inherently more ket will continue to shift from

large machines to terminals (particularly so-called "intelligent terminals" which include flexible systems of "real time" or "on line" processing. The difference is that in a real time some computing power) and towards small communicating system new data can be entered computers. into any of the computer files Aiready peripherals (includat any moment instead of having to queue up until the next relevant batch is being fed ing magnetic memory storage) and terminals account for into the machine. Similarly, any nearly 45 per cent of the industry's sales, and represent twice of the files can be inspected at as much as all the sales of large any time by means of a number of different terminals all operat-ing simultaneously. The best known example of real time mainframe computers. Sales of mainframes themselves repre-sent only about a quarter of the

computing is the airline booking

In the next decade many

the-minute data.

system, which carries an always up-to-date list of available seats. tainly decline in the next ten The control computer flies can The traditional distinctions aitered and reviewed by between mainframe computers, hundreds of different terminals mini computers, terminals and in booking offices all over the world. The airline system is therefore an example of a distrimicro-computers are, in any case, becoming more misleading than helpful. The point can be buted network which depends illustrated by a forecast from Diebold Research that by 1990 upon extensive data communications for one of its main funca computer processor will be tions. Similar systems are used available which has 25 times the power of an IBM 370/168, (one in banking and many other husinesses which depend on the of the largest) but costs only transmission of detailed up-tothe same amount. Or to put it

industry's total revenues, a pro-

portion which will almost cer-

computers at only a very small extra cost.

The clear implication is that

computing devices will become extremely widespread and, paradoxically unimportant. mere processing of data will be taken for granted, because it will become a cheap and widely distributed part of a system. Much more importance will be attached to the characteristics and purposes of the networks communications links and the terminals used to gain access to

### **Emphasis**

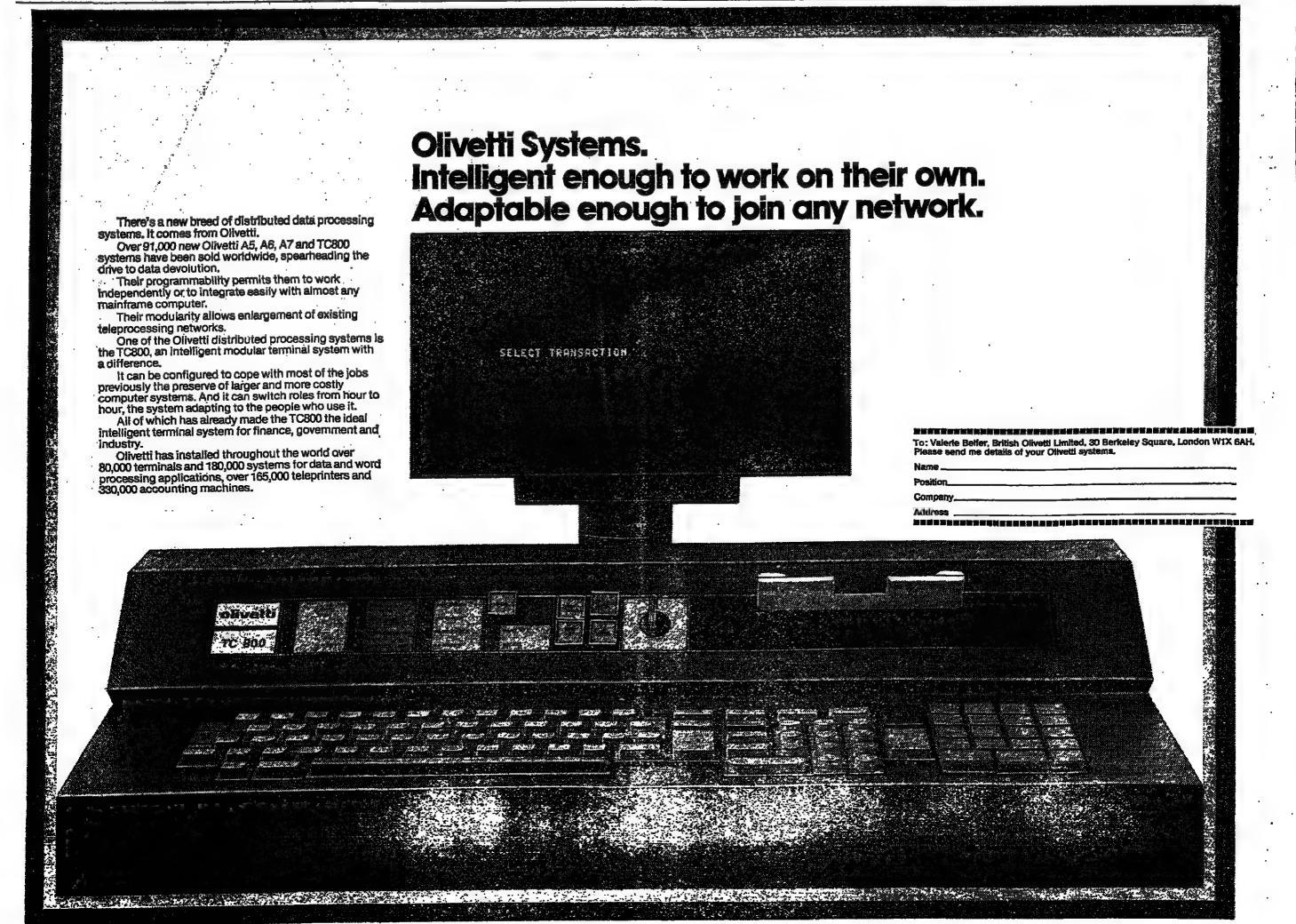
The emphasis on intelligent terminals can be seen from the fact that the world's largest civilian computing network, the General Electric GEISCO ser-vice, has recently offered Intelligent terminals to customers. Even though the network of 150 large computers linked by satellite is more than capable of carrying out any pro-cessing required by the customer, it has been found that many tasks can be per-formed more economically by a small local processor.

More complicated processing, which might involve data stored on different sides of the Atlantic. would, however, be performed by the GEISCO Mark 3 service which the local processor ca:: plug into using an ordinary tele phone connection.

Local terminals in morgeneral networks will not mere! carry out processing on their own they will also carry out the important task of compressing text into the pulses of computer language. When so compressed the text can be sent, perhaps at night, to a similar machine. This ation in the blink of an eye and then type it out at leisure.
Such "electronic mail"

requires a computer network's communications, but uses only a minimum of computation.

This kind of application is predicted to grow rapidly, if only because companies already use computers for their more complicated data processing needs. The challenge of the next few years is therefore to make computer systems "friendly" and easy to use in order to spread cheaper and cheaper machines across everwidening markets. And to preanother way, small terminals pare for the day when computers will be able to include the same in some form or other will be as much smaller companies will power as one of today's larger common as telephones.

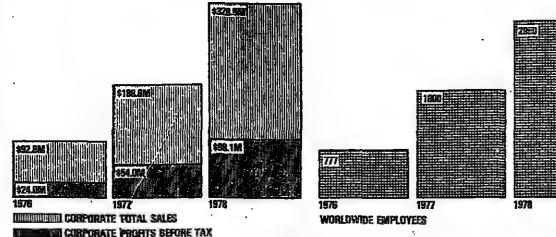


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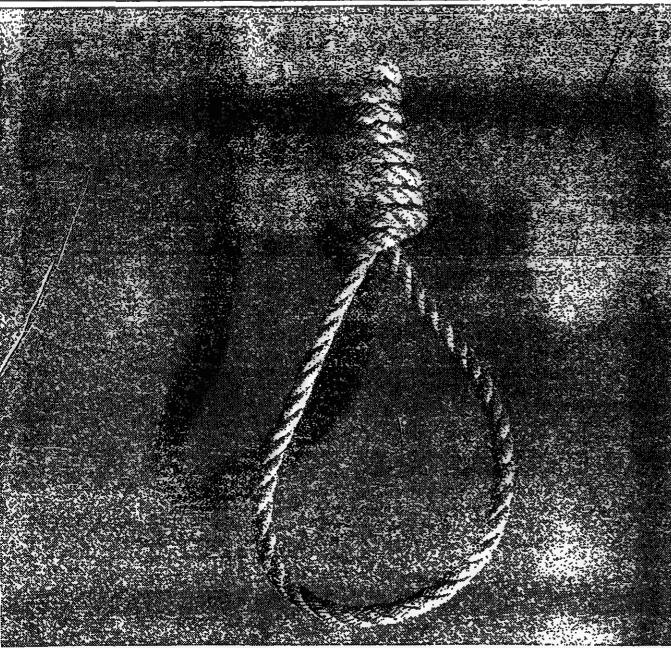
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# The top names and their rating

TALKING ABOUT company fortunes leads inevitably into the numbers game, and since computer industry is the one which throws up the most startling numbers, the game becomes that more incredible in its results.

Take, for instance, the case of Storage Technology Corporation (STC), a stratosphere high-flyer whose 1978 turnover was 110 per cent up at \$220m with profits up 135 per cent at \$26.8m.

Company leaders talk confidently of "overtaking IBM sometime soon." And, indeed, consulting any fairly advanced on present performance STC should overtake IBM, with its \$20bn turnover and better than 14 per cent growth, in about seven years' time. STC's president has said the company's accelerated growth will continue well into the 1980s. . . . but to

Every management committee has to operate on projections of many kinds to steer company fortunes, and one of the most difficult tasks must be selecting external factors of importance, and weighing these factors against solid figures.

### Factors

In looking for factors that will influence all computer builders everywhere until the middle of the next decade, it is not difficult to decide that the three most important must be the signs that the U.S. Justice Department is seeking a rapid solution to its ten-year-old monopoly wrangle with IBM; the continuous rapid expansion in exports of data processing products from America; and the rapidity with which competitors are penetrating IBM's customer base with machines able to run IBM's and users' parallel software more effectively.

In the ten years since IBM calmly deposited two million documents with the Justice Department for consideration prior to the start of the monopoly proceedings - much to that august body's understandable consternation---IBM's sales have quadrupled to \$21.1bn and earnings quintupled to \$3.1bn. Indications from the U.S. at the end of January were that action was being contemplated that could bring an end to the Belief that an end must come

to the legal charade soon stems from the conclusions of a Presidential Commission which were issued recently. One Commission recommendation would reduce the degree of legal proof needed to show that a monopoly existed; and a second would make it much easier for the Government and its legal forces to ensure that the situation will end and not recur. If IBM should split into five

groups, as has often been sug-gested it might, this will be against the judgment of most of its U.S. competitors in the general - purpose computer market. But why should the Justice Department seek to split up Bell Systems and leave IBM

In some ways, this move has been forestalled already by IBM itself in a number of reorganisations, including the formation of the General Systems group. And while the slow process at the Justice Department seems to hamper IBM very little, nothing appears to reduce the flood of exports from U.S. factories. Last year with about \$4.8bn-worth of business equipment going abroad. 83 per cent of this computers, the increase in exports was about 26 per cent — higher than average industry

### **Important**

It is important to record that while U.S. exports of com-puters and related equipment showed a growth during the year which indicated a year-end total of about \$2.5bn, the rate for the year was ten per cent. But in parts of computers and peripherals the figures for the end of the year is likely to have been around \$1.46bn. This represents a massive 66 per cent export rise, a figure which has many implications for the activities of American companies in Europe and elsewhere and also in this survey. Interesting in the light of the

foregoing is the forecast by Richard Genring, Univac presi-dent, that 1979 deliveries of computers world-wide will reach \$17bn or 13 per cent up on 1978 which was 16 per cent ahead of 1977. This is by all makers everywhere. Univac expected to exceed the

its 1978 fiscal year which ends next month. For the 1979 fiscal year. Gehring said, a further the company's machines appear growth in income of about 15 to have been contained and a per cent was anticipated with orders up 20 per cent and pros-pects that by 1935 the company would grow to \$4bn.

It was the 1108 machine that

### REVENUE INCREASES

The "big seven" computer companies, figures in 5m.

	1976 \$m	1977 \$m
IBM Burroughs NCR	12,717 1,630 1,590	14,765 1,844 1,574
Control Data Sperry Univac Digital	1.430 1.430 736	1,511 1,472 1.059
Honeywell	914	1,037

of the 71 per cent clause—if the company gets the rumoured

big microprocessor applications

grant, this will helve its repay-

Everything in the garden would appear to be rosy for the

makers of general-purpose machines, were it not for the

emergence of the host of IBM

software-using competitors men-

At the end of 1977, there were

top of the IBM range. Now there

are six more companies compet-

ing right across the IBM cata-

logue—and Itel has come right

Amdahis and Itels had displaced equivalent IBM machines. A year later the number was 375

-all in the \$1m to \$3 m price

bracket. Forecasts are that, by

the end of 1980, the share of the IBM market taken over by the

plug-compatible processor makers will reach 13 per cent

of machines above \$1m and an

incredible 20 per cent of machines above the \$300,000

This is one-fifth of the IBM

base in the U.S. and many will not believe the prediction. But Amdahl, for instance, is grow-

ing at over 75 per cent a year

at the Co-operative Insurance Society, Manchester. Obviously these developments

must be of profound concern

plug-compatible

**Growth** 

Eindhoven.

At the end of 1977, 182

down to the £im price range.

ment burden.

tioned above.

mercial computing map ten developments support because years ago and it is to a succes-1,100/80 Univac's biggest machine—that Gehring attributes much of the company's current success.

Univac was one of the five competitors with IBM that U.S. New York Stock Exchange analysts in 1975 expected to be showing serious signs by now of a demise early in the 1980s, only Burroughs healthy enough to continue to survive. It seems the prediction has been correct only in the latter case. Burroughs is indeed healthy enough to survive and has been making remarkable

especially in Britain. Meanwhile, NCR, which the analysts expected to be the first to go, pushed income up 19 per cent to \$853m and earnings up a record 61 per cent to \$90m last year. In 1978 the company announced that it would compete with IBM right through the range up to the very largest machines, which is strong talk for a supposedly moribund organisation

progress in both large systems

Control Data Corporation, mark. over which the analysts were shaking their heads, has not only survived, but has designed the world's most powerful computer, the Cyber 203. This machine can solve 46,000 simultaneous equations, which means that it can handle models of the weather patterns in the northern hemisphere of a complexity hitherto beyond capacity of existing machines. A consequence is that CDC has an assured market for this equipment not only in ery major weather centre but also in Government and big company computer centres where complex modelling is a large part of the workload.

Control Data engineers have used the biggest conventional computer available to them from the company's production lines to help design this new which giant machine. outstrips in its capabilities anything available from competing companies.

### Tests

Using a complex of software, called AIDS, the engineers have been able to test out proposed innovation for the 208 before committing hardware. Working with Fairchild, they have also developed a family of large-scale integrated circuits for use in this and other members of the new super-computer group. CDC, largest builder of peri-

pherals outside IBM, also is gaining a great deal from the continuous growth in demand for peripherals. For Honeywell, 1978 brought a 22 per cent increase in sales to \$3.5bn of which computer equipment represented \$1.3bu

(up to 25 per cent).

The Honeywell results will go a long way towards scotching the recurrent rumours that the company was preparing to abandon its computing wing to a competitor. How these arise when data processing is the most successful sector of the company is hard to say. They may derive from the fact that Honeywell found it necessary to abandon the design of super-computer it had on the stocks at Phoenix and start afresh, while agreeing to differ on very large machines with CII Honeywell Bull in France.

International stature can certainly be claimed from Britain's ICL which has just passed the \$1bn mark and is thus the world's fifth largest computer builder. Its 22 per cent growth to better than £500m in 1978 coupled with a 24 per cent advance in pre-tax profits is all the more noteworthy in the light of manufacturing problems and sharply-fluctuating exchange rates.

Order books are at record levels so the company is well on its way to achieving the fibu target for 1983. Difficulties with the most complex of the operating systems for the largest of the company's machines appear remarkable success has been scored with the £4m 2960 for which a 200th contract has just been secured.

ICL has not repaid the £40m really put Univac on the com- Government research

trauma that he is most unlikely to move again for many years. Then there is the software question. For the 360s, the 370s and the new 303x equipment, machine and user application software is estimated by Gene Amdahl himself to represent an expenditure of \$200bn, by IBM

and by users. Software is expensive, conversion is expensive, so marketing men for the compatibles have a relatively easy pitch. They do not have to tell potential not have to customers that there will be conversion changes and that some new software will have to be written-only that the new machine will cost less and run faster (in most cases).

to IBM marketing forces. But

they should cause no rejoicings

camps. The reason is that any

user who moves, say, from a

large IBM central processor to an Amdahl 5/S will already

have given himself such

competitors

traditional

### Conclusion

To sum up, in the compatibles ultimately could limit IBM's traditional competitors to that section of the market they can only two contestants, Amdahl capture from scratch. Customers switching may be cut to a very low level, well down in the range, which is where many and Itel, both operating at the recent client captures have been taking place—for instance IF System 3 to ICL 2903. And now Japan is seeking to extend its penetration of the U.S. market where, at present only Fujitsu has a manufacturing base. The above refers to well over 60 per cent of the total computer marketplace.

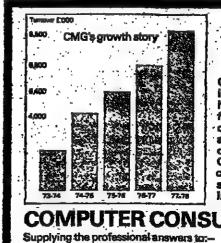
So far as small business com-puters are concerned, the most recent compilation by Computer Guides showed that there were 53 entrepreneurs active on the UK market plus 26 manufactur-ing companies, including all the large mainframes makers and the leading makers of minicomputers.

This is in a market sector growing at between 30 and 40 per cent annually. So competition is intense and new contestants are appearing almost every week.

and turned over \$820m in 1978. It has well over 200 machines installed world-wide and of Many of the entrepreneurial group are — inevitably — basing these 26 are in Europe-at such their offerings on Digital Equipprestige sites as British Airment Corporation Machines. One ways, Renault and the main of them, Gamma Associates, is Philips computing centre in expanding so quickly that day when its turnover exceeds the UK sales by DEC of its own Slightly lower down the range with machines averaging, say; film against the £1\rm to £2m of Amdahl, Itel is penetrating as deeply into the premises of units cannot be far off. One company in the supermini market which is worth watching is Tandem, a relative newcomer the largest traditional users of machine installations it has not installed its largest machine in far placed with users, it has not the UK, an AS/6 built in Japan yet had a breakdown of service.

The UK are the specifications, With a predicted meantime failures of 53 years. between failures of 53 years this is not surprising.

Ted Schoeters



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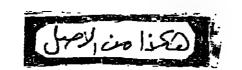
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# Encouraging growth projections

trading between the separate \$1.640n and the UK third with countries of Europe, but also imports of \$978m against because of the very large exports of \$925m. Italy had imports from the U.S.

United Nations figures for \$568m. 1976, the latest available, show that in computer and office equipment total imports by analysis of the figures by 21st Century Research, the U.S. European countries was almost enjoys 28 per cent of the world Sibn or 56 per cent of the battel Soon or 56 per cent of the total of world trade in that year. with 16 per cent, Japan with Total exports by European 9.6 per cent, the UK with 8.8 per countries were just over \$5bn, which implies net imports of 8.2 per cent the dominance of about \$1bn.

It is worth comparing these systems technology.

imports of \$580m and exports of

trade followed by West Germany cent and then France with

the dominance of American 50/50.

about \$1bn. It is worth comparing these systems technology.

The figures show that France figures with the often quoted is the largest importer at fact that IBM alone has some market is estimated by the U.S. suppliers to be between \$25bn more than \$1m, a growth of

IN TERMS OF international \$1.200bn compared with exports trade, Europe is easily the largest market for computer second with imports of \$1.18bn decount for about 78 per cent of the world market consultants Arthur D. Little and \$29.5bn. The growth rate of about 50 per cent is expected for computer systems in the over the next five years from American companies together 1978. They expect a real growth price range \$20,000 to \$250,000 the 1978 shipments estimated at account for about 78 per cent of 40 per cent over the next five is expected to be relatively about 36bn. A continued international trading between the separate states in the market for IB78. They expect a real growth price range \$20,000 to \$250,000 the 1978 shipments estimated at account for about 78 per cent of 40 per cent over the next five is expected to be relatively about 36bn. A continued investigated to the price range \$20,000 to \$250,000 the 1978 shipments estimated at account for about 78 per cent of 40 per cent over the next five is expected to be relatively about 36bn. A continued investigate of \$20,000 to \$250,000 the 1978 shipments estimated at account for about 78 per cent of 40 per cent over the next five is expected to be relatively about 36bn. A continued investigate the fact that samples expected to be relatively about 36bn. A continued investigate the fact that samples expected to be relatively about 36bn. A continued investigate the fact that samples expected to be relatively about 36bn. A continued investigate the fact that samples expected to be relatively about 36bn. A continued investigate the fact that samples expected to be relatively about 36bn. A continued investigate the fact that samples expected to be relatively about 36bn. A continued investigate the fact that samples expected to be relatively about 36bn. A continued investigate the fact that samples expected to be relatively about 36bn. A continued investigate the fact that samples expected to be relatively about 36bn. A continued investigate the fact that samples are sa of the world market. This years, with the largest thrust in much faster than for the large obviously reflects the fact that smaller systems. When the mainframe, with a doubling of America is by far the largest associated revenues from soft-shipments by 1983 both in the market for computers and with ware, terminals, services and U.S. and elsewhere. One of the about 46 per cent of the total office systems are included total main reasons for the expected 189,000 systems installed revenues are estimated at growth in small systems is the at growth in small systems is the cent emergence of a new generation However, it should also be increase compared with 1977, of equipment which is versatile remembered that most of the The previous trend for revenue enough to be used on its own U.S. companies, particularly to be derived more from ser- or to be hooked up into a large IBM, manufacture throughout vices than from hardware is network of systems. Small com-the world, so that world trade expected to continue until, by puters are therefore expected figures do not adequately reflect 1983, the split will be about to find a market both among small-sized companies as well as

plug-compatible equipment is expected beyond the 1978 figure of \$650m which represented about 3.6 per cent of the worldwide total computer sales.

In 1979 the general outlook of the industry is buoyant in spite of signs of an impending recession in other industrial sectors. A growth of between 15 and 20 per cent is being predicted within the mainframe industry against the 12 to 15 per cent in recent years.

The companies producing small computers led by Digital Equipment Corporation (DEC) are talking of growth of perhaps 25 per cent to 30 per cent, which may represent a slight slowing down from the explosive rater of the last few years, but is, of course, growth from a continually widening base.

IBM, the barometer of the whole industry, reflected the general optimism among the big even companies with revenues of more than \$1bn has increased its capital expenditure over the \$3.4bn spent in 1977, opened two new factories in the U.S. and increased employment by 12,000 people in the first nine months of the year. IBM's revenue for 1978 increased by 16 per cent to \$2bn with earnings up 14 per cent to \$3.1bn. Honeywell, the seventh largest company, in terms of data processing sales, increased total revenue 21 per cent to \$3.5bn, although only a proportion of that was accounted for by data processing revenues.

In reviewing the world's markets the two great uncertainties are the potential for selling computer systems to China and to the Soviet bloc. It facturers most useful lessons is clear that China could repreand take risks that the average sent an enormous market, and it has been taking an intense interest in all the major systems-available. On the other hand, it is probable that it will want to manufacture as much as possible within China. The needs of China are still as uncertain as the political pressure in the West, which may well build up feeling against exports of such a sensitive product to a Communist country. Similar con-siderations apply to the Soviet Union. The joint development of Ted Schoeters the ES series of computers by has an inertia built into it which the seven Comecon countries is is quite unlike that for say ship-

CDC. HIS CII; SEMENS COMPUTER MARKET **SHARES** W.Germany France

cated computing. According to some Western experts the Soviet behind the West in the development of computers and there is growing pressure to import hardware and know-how. However, trade of this nature is subject to the veto of Cocom, the U.S.-dominated committee, set up to vet exports of strategic importance. Present indications are that trade will not be allowed to build up to a very significant level.

Otherwise, the main factors in world markets are likely to be facing any such preference the increasing protectionism scheme would be to define what within Europe the growing is a European company, since strength of European computer many of the American comsemiconductor industries and the exporting ambitions of Japan. These factors will all tend to reduce the dominance of America on the world scene, but no very rapid change can be expected. Because users become easily locked in to a familiar supplier, the computer market has an inertia built into it which

not keeping pace with the building or steel. Market shares countries needs for sophistichange only relatively slowly because users do not want to change a system once it is running without very good reason.

Within Europe government procurement policies will have EEC policies, and it is still not clear whether a general Euro-pean preference policy will be devised to replace it. This idea was recently suggested by Dr. Chris Wilson, managing director of International Computers Limited (ICL), but has not so far received any general acceptance. One of the main problems panies including IBM and Honeywell, have large manufacturing plants in Europe. Whereas, it is comparatively easy for an individual govern-ment to designate a chosen supplier, definition on a pan-European level would be much more difficult if not impossible.

Max Wilkinson

# Service bureaux expertise

NOT ENOUGH attention has them and operations on behalf been paid in the past by Gov-of outside clients. This situa-ernment to the work of the tion may not last, however, if computer service industry, with the largest bureaux, like UCSL the result that there now remains only one independent service bureau which is completely free of transatlantic trammels. It is CMG, which, trammels. It is CMG, which, of the fact that the nebulous unlike most of its peers, is not indeed a most important com-UK or U.S. group.

Yet the service industry is a very large sector of effort in its own right with last year's total turnover probably well over the £300m mark, a significant figure even when compared to total sales of computer equipment in the UK in 1978 at £780m or thereabouts.

Rate of expansion of the industry is about 20 per cent annually, which will take it well over the £1bn mark by 1985. Within the service industry, consultancy and software expertise sales are not easy to pertise sales are not easy to for software work that needed determine from Department of to be fostered and turned into

for the major groups that own ware groups.

and BOC Datasolve, continue to move from strength to strength. Within the past year or so, Government has become aware

modity, though it can neither be patented nor trademarked with any success. It took 10 years for the industry to teach the pursestring holders that just as every car has an instruction manual for drivers, so must every computer have asts of operating instructions, both for the physical operator and the electronic controller inside the

Another fact that took a long time to drive home was that in Britain, with its long tradition of engineering problem-solving there was a particular aptitude Industry breakdowns. An an exportable asset. IBM, approximate figure would be Honeywell and Univac recognised that fact long ago. So did

At least we now have Insac, by ICL and supported by STL ware fees sharply. Software formed under the wing of NEB The piquancy of the situation prices charged by the company and joining CAP, Logica and is that a Government-backed become an important part of somewhat like an international broker for software products, for which it recognises a need and a market, commissioning them from one or other of the members as it sees fit.

Its first big step has been to What really could put Insac sign an agreement with the on the map is the conclusion well-known Calcomp organisation in the U.S. to provide at least 15 applications routines Calcomp's existing and novel graphics equipment.

### Leader

Calcomp is world leader in this area of computer-controlled devices by a long way and has financial problems resulting in part from extremely heavy development costs.

Insac has entrusted the work to SPL and some idea of the importance assigned to it can be gained from the fact that, at Abingdon, SPL is installing a full IGS-500 Interactive graphics

and joining CAP, Logica and is that a Government-backed become an important part of SPL International in a loose body is helping to promote a the total cost of these machines confederation where Insac acts privately developed and inter- which run from, say, £40,000 to nationally known language in competition with the CORAL-language developed within UK Government establishments, these moves several months ago primarily for military use, but and alternative major software now being spread into industry. entities have been written and

What really could put Insac (long-awaited of an agreement with the Post Office to market Viewdata in America. This will not be an easy task, even though Insac is being aided as a con-sultant by Sam Fedida who invented Viewdata, and it is hard to understand why the Post Office hung back,

It is even harder to understand why the Insac organisation tends to draw Conservative bullets, since it is operating primarily as a marketing organisation run by people who have been in the business for years. There can be no com-parison with the high-risk operation that Inmos representswith public funds at risk.

1978, with possibly the same for the french makers seven years full IGS-500 interactive graphics ago when the French Commersoftware work. The complication arises because it is not post graphic ago when the French Commertion arises because it is not post graphic ago when the French Commersible to differentiate completely years fostering links between world marketing of the realbetween work done by bureaux leading UK and French soft time language RTL 2, developed series, IBM cut machine costs
originally from small computers. originally from small computers to the bone and put up soft-

user boggles at, simply because they know the equipment far better than most people. After all, if a bureau has to drop out a defective machine, it loses money and the goodwill of

which run from, say, £40,000 to

£140,000, for a workable array.

Itel and Hitachi, anticipated

these moves several months ago

entities have been written and

tested. Initial reaction from

most competitors is that the

move is intended to make

switching from existing IBM

equipment much less attractive,

in a particularly vulnerable

section of that company's range.

teach most users and all manu-

and hungry men.

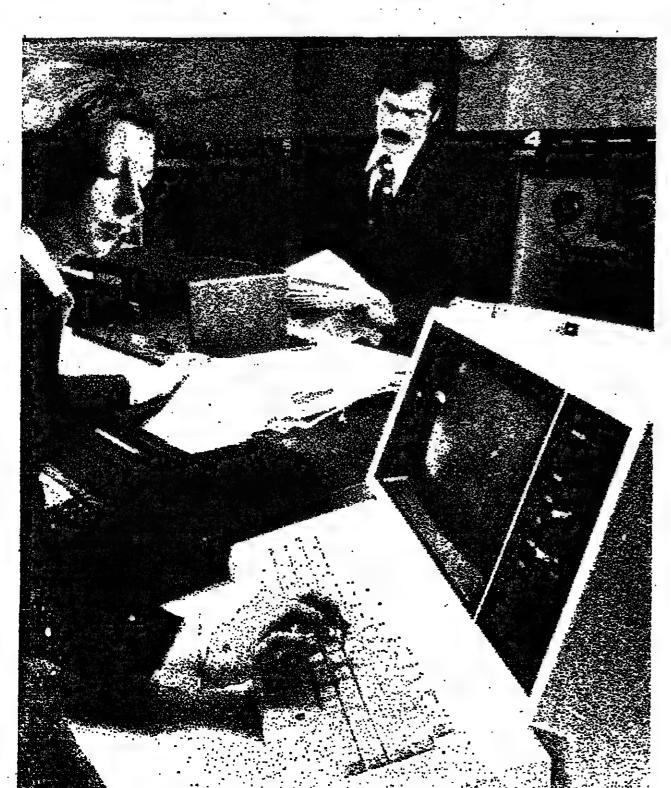
Bureau operators are lean

They can

Some competitors, including

All the leaders of the big bureaux have an expertise which is not matched in any other area of th eindustry and it is some comfort to know that their advice is now frequently sought by Government.

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The supermarket chains.

including Tesco, J. Sainsbury, Fine Fare and International

Stores, are leading the way in

introduction of com-

THIS YEAR in Britain there

will be a market for integrated

electronic circuits, of which microprocessors are a sub-set,

£80m, comparatively little of

In 1982, the total UK market for this section will have risen

to £130m, or a gain of 20 per cent over three years—not what one could call a mad rush.

But as the imports of com-

ponents in general have been

rising steadily over the past several years at a rate of 15 per cent a year, it is very likely

that imports will account for an

even larger share of 1982 con-

sumption than the 46 per cent or so for 1979. Half the 1982

market figure, or £90m, would

encompass the first half year, the computer industry deficit is

likely to have been a staggering £300m. Go on like that and the

And where do we in Britain continue to fall down? Precisely

where no real support or en-

couragement has been given by Government or any of its many arms—peripherals. Not to go

into too much detail, the 1978 shortfall in this area is likely to have been £260m, very largely made up of ancillary

pieces of equipment, or parts of

equipment for peripherals manufacture, not precisely specified in Government figures.

**Peripherals** 

that being micros.

amounting to about £147m. any use. And the value of such Domestic production will reach ancillaries and the cost of

be a good guess.

In 1976, UK computer imports exceeded exports by £150m. In 1977 the figures moved even more sharply into the red at £200m and for 1978, judging by the belated statistics from which contrary, businesses and industries are tended to improve working conditions while creating new jobs in the user industries and with the belated statistics from suppliers.

Vehicle for the Government

This problem has not been Kenneth Warren, MP, took tackled by Government and no spart the much-vaunted "£400m emount of talk about micro-boost for micros" and disprocessors and their beneficial covered only £100m, additional

effects will have any influence to £135m already earmarked.

on it at all. Overseas suppliers of the latter sum, Inmos of these peripherals will build receives £50m. The Dol's in—are building in—micros as micro - processor Application they see fit and if their use is Project (MAP) receives £15m justified, not because the Dol and the Micro-electronic industrials and the Micro-electronic industrials and the Micro-electronic (MIPS)

says they should. try Support Pro Yet any computing system a further £70m.

and most instrument systems

based on micros need peripheral

devices, or ancillary units of

one sort or another to be of

ancillaries and the cost of

making the whole array of

equipment operate (program-

jumped on to so small a thing

as a mocrochip, so late in the

He points out that the fear

of job losses through automa-

tion has been with us since the 1950s and yet no great losses have materialised. On the contrary, where smaller

Vehicle for the Government drive is the National Enterprise Board which has chosen to back

entirely new ventures in com-

ponents by Inmos and GEC-Fairchild while ignoring the fact that Ferranti has developed

and is selling a perfectly adequate military micro, or that Plessey has a number of export-

able memory products including

bubble memories, as well as a significant development of a large holographic computer

What the chances are of the chosen two in the very tough world of the semi-conductor

industry we will come to later.

Meanwhile, there is some doubt as to just how much is being put into the micro plaus.

try Support Programme (MIPS)

A recent scathing analysis by

memory now under way.

Warren's £100m.

Controversy

tion he underlines the danger in

competition, such as in office

To look a little more closely at

what may befall Inmos and GEC-Fairchild, it is valid to point out

that GEC has a history of

abruptly terminating any manu-

facturing operation running at a loss. Sir Arnold broke with Mullard at a very early stage in

the game when Associated Semi-

conductor Manufacturers was not yielding according to his taste. Later, when English Electric-Marcoul was absorbed,

Marconl's £15m showpiece plant near Chelmsford, making a series of standard integrated

circuits, was closed down and all

The reason for these moves,

small area at Wembley.

electronics.

techniques.

and the manufacturers themselves are auxious to achieve as wide a market as possible. In addition, the most sophis-ticated of the new systems now

on offer give shoppers a fully-detailed till receipt, describing each item and the price paid. Items are either keyed into the machine or read by a high-speed optical scanner which decodes a special bar code printed on the product, Such detailed information provided when customers pay is claimed by the manufacturers to give shoppers greater confidence in the accuracy of the till — and it is argued that shoppers who are happy with a store's checkout arrangements are likely to shop there again. The electronic systems are also aimed at speeding up shopping flows, avoiding long delays, and the claimed savings in management costs should also help keep prices in

However, it is the management aspect of the new computerised checkouts—rather invered to the back door, than simply providing more There are basically three information for shoppers—that levels of sophistication in the is the real reason why the big new computerises. British retailers are showing so able to retailers.

A REVOLUTION at the much interest in them. The new First there are electronic data processing at individual checkout is planned for the systems have the potential to units that perform almost extended the systems have the potential to units that perform almost extended the systems have the potential to units that perform almost extended the some systems. It consists of a termore and more retailers — retailing management, enabling electro-mechanical units they minal sited at checkout counters especially the big supermarket stock control procedures to are due to replace. The manual linked by cable to a storechains — invest substantially in incorporate at least daily—if not facturer has simply replaced the level controller. Each terminal Armed with such up-to-date information, the retail executive then is able to respond to sudden surges in demand for particular products, or identify areas where sales are weakest

and not earning enough. In a fast-moving business such as food retailing where time literally does mean money and the volume of trade is large, the retailer who is able to make the fastest decisions usually comes out ahead of the game.

Computerised stock control linked to actual shop-floor trading also enable stores to cut the amount of stock held by up to a fifth, and to order new stock as late as possible to reflect market trends.

The pending electronic checkouts revolution in the High Street will also be helped by re-tailers' need to replace the checkout systems they introduced for decimalisation in

Mr. Irving Nixon, a retail specialist with IBM, the U.S.-owned multi-national, said: "The commercial use of low-powered laser beams to read catalogue numbers from a bar code symbol brings a new dimension to the role of the checkout. For the first time it has become practicable to col-lect information on every item which leaves a supermarket as well as recording what was de-livered to the back door."

new computerised systems avail-

Retail trade systems

electro-mechanical is equipped with a cash drawer components with modern electronic ones. Prices, therefore. can yary enormously according to whether the unit is needed serve only a few customers a day, or needs to stand up to the pounding received at a busy supermarket checkout.

At a more sophisticated level are the so-called "stand-sione data capture units." These permarket manager can record data at the critical point, the check form all the normal functions of a cash register, but also record at the critical point, the check-information about sales on an out, and use that information to improve many aspects of a internal magnetic tape cassette which can be removed at the store's operations. end of each day, or once a week, form all normal cash register operations and provide an economical store-and-forward and taken away for computer

processing. At the top-end of the market are the fully computer-controlled systems which incorporate laser-scanning. These have electronic units at each checkout controlled by mini-computer in the shop or, in some cases, by a remote computer connected to the store via a telecommunications link. Such systems are much more flexible and have many more facilities than the stand-alone units.

IBM has emerged as one of the main suppliers of the new computerised checkouts for retailers. It has three main systems on offer the 3650 retail system; the 3660 supermarket system; and its new 5260 retail

The 3650 consists of a pointof-sale terminal, a merchandise price enabling stock, profit, and ticket encoder, a visual display-based purchase order/receiving level. A comprehensive finanterminal and a powerful concial system is also operated troller that links the shop's including the payment of all retail system with a main suppliers' invoices.

computer. The 3660 aims to integrate

Singapore and so on) at wage

in data processing, while be making devices by 1981-82 Japan's information - oriented education programme, drafted in 1972 (!) provided for an expenditure of \$36bn in the period 1972-85. That is over £1bn a year on education alone. Supported. Both will utilize the making devices by 1981-82 which are likely to become industry standards before then, more savage price war from the American majors can these ventures be?

A salutory lesson can be

Meanwhile, the per capita pro duct from the company's 78,571 employees was in the region of £18,000 and while net sales have

No British company is anywhere near the above per capita level. But that is what potential competitors with Texas, National Semi, Motorola et al will have to achieve. And together the latter are spending probably Sibn a year on research and development, plus an undis-closed amount of military fund-

Inmos, GEC-Fairchild and

### The December announcement and for the long-term losses on added £40m for MAP, and quite semiconductors by all the UK rightly so, as well as freeing another £60m for education and tion from dumped U.S. circuits, training, unspecified. Hence assembled offshore (in Taiwan, It is this type of nebulous rates frequently ten times less approach to education and than those which prevailed in ming) would generally lie training that David Firnberg, Britain. UK makers could not between one hundred and one head of the National Computing even produce at the imported head of the National Computing even produce at the imported

the micro itself.

It is hardly surprising that Jim Bonnett in the influential the Government that the French of Government support and "Green Sheet" says wryly that "never have so many politicians jumped on to so small a thing.

A salutory lesson can be derived from the recent results of Texas Instruments, which is undoubtedly the world leader in On Inmos, Mr. Firnberg says that part of the current controversy stems from the fact that producing the first 64K random access memory in the world back the entreprenurial enter-

price of three individuals. And as a general, but cogent, observa-Components' accounted for \$1bn out of the \$2.5bn Texas total sales. They provided \$128m out of the \$257m income before taxes. But while other a small market such as that of the UK in splitting up available resources between too many sectors of the company's elec recipients, or promoting ven-tures in areas where there already is savage and lethal tronics involvement expanded at 37 per cent (digital products) and 23 per cent (Government) components advanced by 5.7 per cent only, after 8 per cent in the He warmly welcomes any cent only, after boost to application of computer previous year.

Meanwhile to the warmly welcomes any previous year.

employment has advanced only 13 per cent.

development concentrated in a NEB, please notel

keyboard, and display and fulfils

the functions required at the

with an optional checkout scan

ner able to scan items marked with a machine-readable code

and so reduce manual entry of

goods information. The con-

troiler can supervise the opera-

With this system the super

IBM's 5260 is designed to per-

data collection system for both individual and multiple stores.

It is designed to complement

the group's other systems but provide different capacities and

alternative approaches to par-

NCR's 255 system is currently

being used at the SavaCentre

hypermarket in Washington new

town, Tyne and Wear. Sava-Centre is jointly owned by Sains-

bury's and British Home Stores,

display units and a printer. Several thousand lines are

entered into the checkout ter

minals by code rather than by

David Churchill

The NCR 255 is based on two computer processors controlling 38 checkouts, disc drivers, visual

ticular problems.

tion of up to 24 terminais.

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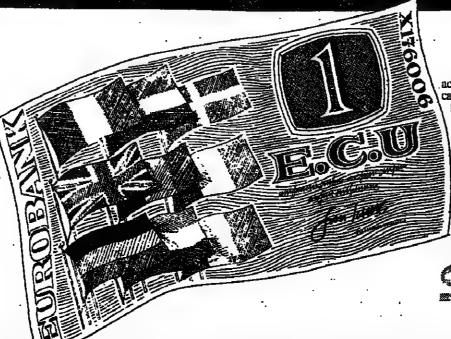
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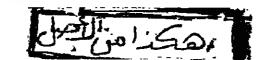
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### THE COMPUTER INDUSTRY V

# A revolution in the office

A REMARKABLY wide range equipment market for computer driven systems will show very rapid growth in the next

beginning to place on small communicating systems and on terminals is a major indication of this trend. The development of computer-like products by the topier giant, Xerox points the tame way. To the IVS reach a natural technologically the same way. In the U.S. a reach a natural technologically very large number of smaller imposed limit. Automation of

fore traditional office com-paies like Olivetti and Adler, wich have been diversifying nirket, are now developing phducts which will communide with each other. Major imputer companies like Inter-Computers Limited CL) which have mainly been lling larger systems, are conidering how to move downnarket into smaller equipment. at the same time electrical companies with a broad base in heavy engineering, particularly Siemens in Germany and the General Electric Company (UK) are starting to move strongly into office equipment. Siemens for example has central functions with computer recently launched a word techniques used for routine processor in the UK, and GEC has bought the U.S. office equipinvolved with a £40m office

electronics technology are caus-First the continual automation of factories will displace more manual workers and add to the The emphasis which International Business Machines is proportion of administrative, clerical and service work, Second, the scope for automa-tion of factories will begin to very large number of smaller imposed limit. Automation of companies are attacking the market while General Electric that come in with a new printer. In Europe two large multi-natonals, Philips and FTT, whise centre of gravity has hitterto been well away from the sector, are developing a will range of products for the offic.

### Complex

These large companies will inevitably require highly com-plex management structures with sophisticated communications and information networks to co-ordinate their production and marketing. Already most major companies use large com-puter installations to deal with accounting, stock control, inventories and many other aspects of the business. Often these functions are carried out in fairly big central computer installations. The next generation of computer equipment will be aimed at integrating these

It is frequently said that the ment company A. B. Dick as a new office systems will depend starting point for its new upon the exploitation of the strategy. Even the British microprocessor or microcombecome puter, which can already be bought in its naked form for equipment company called tens of dollars and will become Nexos, set up as a subsidiary to the National Enterprise ful. Certainly a complete

puters, but as accounting machines with rather better features than the electromechanical equipment they

### **Capabilities**

In one sense, however, the methods of printing. micro-computer is becoming the least important part of the office equipment systems which are to come on the market in the being developed. It is now early 1980s, including some which are very competitive with the ordinary typewriter. new machines, no matter what they do, so that micro-computers will become like electric motors. a vital driving force which is one of the least interesting aspects of a piece of equipment

Attention is shifting, and will continue to shift rapidly towards capabilities of so called peripheral equipment like printers, magnetic tape and disc storage units and television-like displays. At the same time customers will become more and more interested in how all these items of equipment can be connected into a communicating

Electronic typewriters, copymachines, machines and magnetic filing systems are all capable of version equipment through the public telephone network to remote sites. Use of ordinary and a stanner, which first converted the image of the page to be copied into electronic code. Such scanners are already was a stanner of the image of the page to be copied into electronic code. being wired together through telephone lines limits the network to relatively slow speeds for the transfer of information. Where the network has to carry a large amount of traffic, buildoffice to office.

Although the information will be carried in a stream of elecstream") which is used and understood by computers, communication rather than computing is likely to be the essence of such networks. Bit stream can be used to encode the human voice, television pictures, facsimile images of documents or simple alpha-numeric characters. A network once established can handle all these different types of traffic simultaneously, although the transmission of a facsimile document uses much more of the electronic pipeline's capacity ("bandwidth") than the transmission of text in a form simi-lar to that of the Telex.

### **Economics**

The economics of establishing an electronic communications network within an office will become more attractive as extra pieces of equipment are added. Only the very largest companies will want to install a complete system all at once, and even they will wish to add new items as they come on the market.

A great advantage will therefore be reaped by those com-panies which can offer a complete system of compatible equipment. Customers will want to be sure, not only that all the machines which they buy talk the same language, but that future models still on the drawing boards will be compatible with earlier generations of equipment.

These ideas probably seem futuristic to office managers who are still replacing mechanical typewriters with electric machines, and who tend to think of small office computers as performing a special function, like accounting, required only in a particular office. However, sceptics should pause to consider the way in which plain paper copiers developed in little more than a decade from being an expensive novelty to an almost universal item of equip-

Acceptance of the new systems will greatly depend on bines Telex and data transthe ability of manufacturers to reduce the cost of some of the

The essence of a word processor is that a typewriter keystroke operates an electronic switch instead of a mechanical linkage. The electronic code corresponding to each character is stored in a memory similar to a calculator memory, or recorded direct on to a magnetic tape or disc. The word processor includes a micro-computer which allows the text to be corrected or edited in its electronic The memory is then

Several fundamental trends in systems has grown up on the played back to drive a printer of companies is now committed society and in the evolution of basis of cheap, compact micro- which produces the finished to the belief that the office electronics technology are caus- computers. Many of the more document. Clearly the eleccomputers. Many of the more document. Clearly the elecing this great focus of interest. successful have been focused tronic data can be sent to a very sharply on a few particular printer in another room or anneeds of the small office, par- other building to produce ticularly accounting and payroll "instant memos" or the begincalculations. They have been nings of electronic mail. The sold, not fundamentally as com- keyboard and the electronics of such a machine are becoming very cheap to manufacture and could before long compete even with a manual typewriter. Printers, on the other hand tend to be rather expensive to produce. However, some intensive development work is now being put into the production of new

> As a result of this work : range of new printers is likely

One promising development from IBM and A. B. Dick is the ink jet printer. This is a device which can "paint" characters on a page by means of a jet of ink whose direction can be altered by applying electric charges to focussing plates nearby. SBS Publishing, the Californian analysts, say that print heads for such printers can be manufactured very cheaply at about \$20 and have a very long lifespan.

It is possible, therefore, that ink jet printers will replace ordinary printers in many appli-cations. The special advantage, however, is that the ink jet can move in any pattern, and is not therefore constrained to reproduce particular type fonts. An ink-jet printer could therefore be used in an "intelligent" copier in conjunction with a

### -Advantage

The great advantage of this ings can be wired up with high type of copier over the convenspeed cable, carrying a constant tional electrostatic plain paper copiers, is that the machine which scans the original document need not be in the same place as the machine which produces a duplicate. They could be connected by a cable or telephone wire and could be used for communication in just the same way as word processors.

More important, the electronic image of a page could be put through a computer pro-cessor before it is reproduced. It could therefore be changed in size, altered in content, simply filed, or transmitted to another office before the copy

It is obvious, therefore, that as machines for typing letters and copying documents begin to include a stage at which the information is put into electronic form, the advantages of communicating networks of similar machines will rapidly begin to be exploited.

The larger networks will be managed by computers, and of small computers carrying out special tasks like file manage ment and accounting. Executives will be able to use the networks for internal communication while using it at the same time to gain access to company information stored and processed in different departments.

### Networks

In the longer term company systems will want to hook into the larger national and into international data-carrying networks which are now being developed. One of the earliest of the specialised data networks was Telenet in the U.S., which switches "packets" of data throughout the country. In Canada, the Datapac and Infoswitch services were established in 1977. In Europe, most cour-tries are now developing high speed data networks, which are expected to be in widespread operation by 1980.

In France the system called Transpac is now starting operation. In the UK a switched data network will be developed in the early part of the next decade, and in Germany, Datex service commission. Initially, these public data networks will be used for pueral equipment. This is large communication between particularly true of electronic definition facsimile machines in typewriters or "word processors" and so-called "intelligent copiers." tronic mail between large centres, transmitted during the idle hours of darkness. Eventually, when all telephone conversations are encoded in computer language, the distinction between data and voice networks will no longer exist. However, because of the vest amount of capital sunk into existing telephone networks. this will be a slow evolutionary

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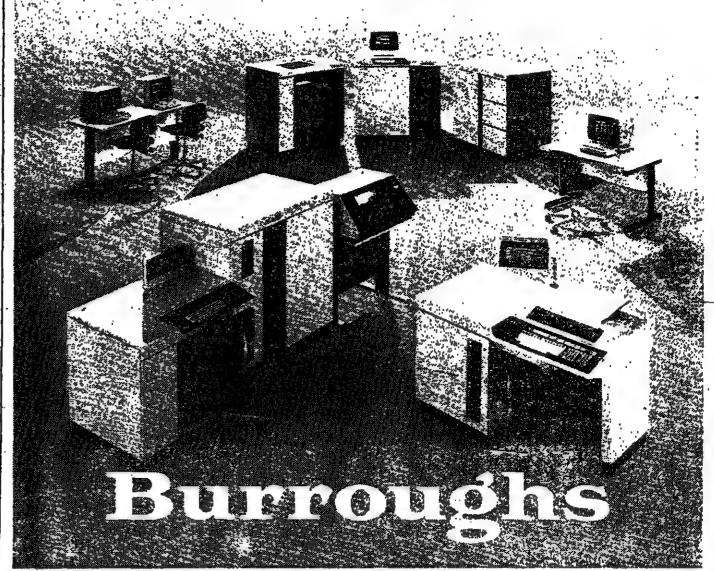
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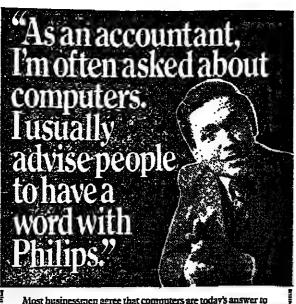
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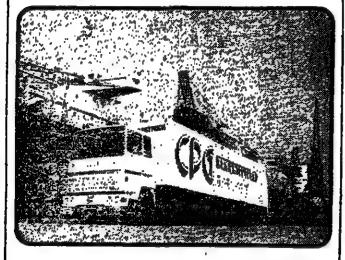
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# No stopping the Japanese advance

THE STRENGTHENING of the ever, co-operating closely in the dollar against the Japanese yen, development of a computer the lowering of Japanese tariff technology which is almost combarriers against foreign computers and the general discussions IBM. It is realistic, therefore, Japanese trade have all helped market together and compare to postpone the feelings of IBM's 32 per cent with 38 per anxiety, which the country's cent for the Japanese "plug computer industry is beginning compatible" rivals to IBM. to inspire among competitors.

Yet the Japanese computing industry remains a serious longterm threat to its American rivals; and consequently any other computing company in the

Although Japanese computer exports are still quite small, there is something slow, de-liberate and inevitable about the Japanese advance which can chill the heart of any rival data processing executive, especially if he is accustomed to a time horizon which is not measured

The stated objective of the Industry led by Fujitsu and Hitachi is to increase exports from the present 5 or 6 per cent of domestic production to about 30 per cent in a few years'

### Domestic

By 1985, the Ministry of International Trade and Industry (MITI) expects that the total domestic installation of computers will have risen to 100,000 systems compared with the present total of a little under 50,000. By that date, annual domestic production is expected to have reached a value of £6bn, which implies that a third will have to be exported. This target accords with that of Fujitsu, the largest company in the business. which is now making strenuous efforts to develop and expand its

Since the annual growth of the Japanese domestic market for computer systems has been slowing down and is not expected to exceed 13 per cent a year in the immediate future, exports are an absolute necessity if the industry wishes to continue its previous rapid ex-

It is true that the Japanese companies still have the possi-bility of increasing their share of their own domestic market from the present 55 per cent. However, the current exchange rate and the reduction of tariffs in April last year (from 13.5 per cent to 10.5 per cent for pro-cessors and 22.5 per cent to per cent for peripherals) has greatly helped the Americans to maintain their position

Furthermore, International Business Machines (IBM) has recently been making a strong

recently been making a strong counter-attack against its imitators in the U.S. and in Japan with an impressive round of price cutting.

IBM has been able to hang on to its 32 per cent share of the Japanese market for computers sold to major industrial companies. By comparison, Fujitsu bas just under 20 per cent of the market and Hitachicent of the market and Hitachi 18 per cent.

Fujitsu aud Hitachi are, how-

pletely compatible with that of imbalance of to lump their shares of the

> The other main manufacturers are: Oki Electric, Nippon Univac, Nippon Electric Com-pany (NEC). National Cash Register (NCR) Japan, Toshiba, and Mitsubishi.

Over the years a series of re-alignments have taken place among these rivals which demonstrates the impressive power of Japanese industrial planning. Last year, indeed, the Government managed to encourage a further shifting of the balance towards its avowed aim of creating one strong group in the large machine business, backed up by strong competition in the market for smaller business and process control

Eight years ago, Japan had six major companies in the computer industry, all competing to develop mainframe com-puters for the domestic and international markets. It was obvious that Japan, with a at present—it suffers the disad-domestic market only half the vantage that it may at any time, size of that in the U.S. could become vulnerable to pressure not support six different tech-

The Government therefore used its substantial leverage through development grants and other means to encourage the companies to form three groups. They were: Fujitsu with Hitachi, NEC with Toshiba and Mitsubishi with Oki. Nippon Telegraph and Tele-

phone (NTT) was also closely involved in the joint develop-ment of very large scale integrated circuits in which all the companies co-operated.

These groupings were later reduced effectively to two, when Oki peeled off to concentrate on peripherals and Mitsubishi joined the Fujitzu-Ritachi group. Then, last year, Toshiba effectively withdrew from the large system business when it transferred its marketing of large systems to a joint NEC-Toshiba Information System Company, which is controlled 60 per cent by NEC with a 40 per

cent stake by Toshiba.
This effectively means that Japan has two groups in the large systems business, one which is making machines tion systems, which are being which can plug into an IBM produced jointly by all the installation (the "plug-compatible" FACOM-HITAC grant over a seven year period. M-200 series made by Fujitsu and Hitachi) and NEC's ACOSseries systems which are not compatible with IBM.

The NEC-Toshiba group has about 15.5 per cent of the Japanese market, which is certainly viable, but perhaps not comfortable compared with the IBM or the Fujitsu-Hitachi

### **Exports**

The main advantage of both Fujitsu and Hitachi is that they are in a better position to build up exports than the group with computers made to a an entirely Japanese-developed architecture which is not compatible with that of IMB. For the Japanese understood at an entirely statement of the statement of early stage that the export of computers would not be as easy as with consumer electronics. motor cars or even ships and

steel.

The main reason is that computer systems must be inti-mately connected with the business methods and the operating philosophies of the companies they serve. A computer system is not analogous to a lump of hardware like a ship, a car or a television set, which can operate with perhaps minor modifications anywhere in the world. The computer system must be tailored very precisely to the needs of the customer, this requires, not merely an understanding of his business, but fluency in the language of the customer.

Furthermore, most computer users are tightly locked into the system which they already use, since a change is likely to mean expensive re-programming delay, and possible disruption of their business.

For these reasone Fujitst and

For these reasons Fujitsu and Hitachi decided to follow the lead of the IBM "plug compatible" manufacturers, which aim to sell machines in competition to IBM mainly to customers which already have an IBM installation.

Fujitsu, accordingly, forged a strong link with Amdahl the pioneer of the U.S. plug compatible manufacturers, by providing finance at an early stage in exchange for 26 per cent of the equity. Amdahl is now the main exporting outlet for Fujitsu in the U.S.

Last year, in addition Fulltsu concluded a potentially significant agreement with Siemens in West Germany. Under this agreement. Siemens will market Fujitsu's larger machines as a complement to its own range of IBM com-

Hitachi, meanwhile is selling. The object is to enable the commachines into America puter to "understand" shapes through Itel (not to be conincluding the Chinese characters fused with Intel, the semi-con- and other patterns, and to recogductor company). The larger nise the human voice. Hitachi machines complement The Government is also sponthe smaller IBM compatible computers which Itel obtains

from National Semiconductor.

Disadvantage

Exports to Communist

disadvantage that they are sub-ject to the veto of COCOM, the

which vets strategically sen-sitive exports to Communist

countries. In the last year, the

Americans under the leadership

of President Carter, have shown

themselves to be very sus-

Although the strategy of ex-

plug-compatible route is the

most sensible-and perhaps the

only strategy for the Japanese

Some say that IBM is con-

strained by its own vast base of users who want to go on using

the existing software. On this

view, it would be difficult to

change the design of IBM

machines in such a way as to

hurt the plug compatible manu-facturers without at the same

time raising an outcry from exist-

vital parts of their internal pro-

gramming on microscopic cir-

velopment of software both for

operating systems and applica-

tions. The aim is clearly to make the Japanese industry self-sufficient, so that it could sur-vive independently of anything

IBM chose to do. One of the

major projects includes the

development of pattern recogni-

tion systems, which are being

Because of this danger, the Japanese Government has been strongly encouraging the de-

cuits (hardware).

On the other hand, there is the ever-present possibility that

ing users.

picious about such exports.

organisation

soring two projects for the joint development of extra high performance computer systems and In addition to pursuing the extra large scale computers for obvious markets in the West, special applications. the Japanese are now very active in exploring the very Meanwhile, as a foundation to

considerable potential for sell-ing computers to China. Russia puters themselves, the Govern-and the countries of the Far ment is providing subsidies estimated to be able \$1bn for a very large scale integrated cir-cuits, as the basic components of the new generation of machines The large scale of Japanese Government support for its

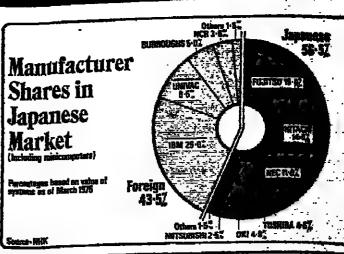
computer industry, combined

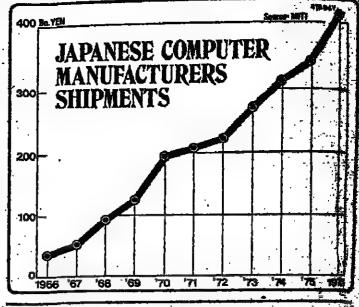
with the impressive success so

far, makes it a certainty that primary goal of maintaining a strong hold over its own domestic market. In the export market, the Japanese will find the going tough against an extremely advanced and sophisticated industry in America and the panding exports through the

> Europe. However, it is also clear that the Japanese are taking a very long-term view of the industry. And in the long-term, it would be a bold man who said they could not succeed.

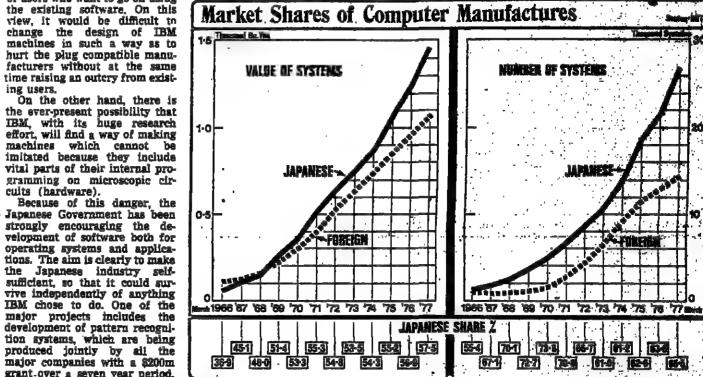
strong nationalist pressures in





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# Fast-growing 'desk-top market'

THE RISE in demand for per- exactly what a personal com- professional engineers and estimated calculators shipments, hobby home uses."

of a home or office desk com- logic from the potentialities of puter was a mere twinkle in the the micro-processor and the eyes of a band of dedicated rapid reduction of the price of hobbyists and perhaps a number memories and other components. of professional engineers, eager As soon as the possibilities of to exploit the possibilities of making small cheap computers programmable micro-processors and small companies in different fields mini-computers. But recently started to think about the identifiable mass markets have possible uses for them. As a emerged for products which are result, the market now presents Texas Instruments and Intercheap, compact, and often have a confused spectacle with national Telephone and Tele-Since the potential uses of

sonal computers has astonished puter is. Dataquest defines it as scientists and the general pub-even the more enthusiastic "a small desk-top computer in-lic. Two further categories have manufacturers, so that the small tended to meet business, profes been identified which in the a leadership in the supply of the desk-top computer is now begin- sional and home uses. Typically, long term are expected to be ning to emerge as a highly im- personal computer products in less significant, although both portant part of the industry. By the study range from \$15,000 are showing a healthy market at 1982. Dataquest, the U.S. combany analysts, predicts that the Applications range from business record-keeping and profesputers in the U.S. will have size. to the potential markets in the U.S. will have risen sional problem-solving to the potential markets in the U.S. to \$2.40n a year compared with educational aids in schools and estimated calculators shipments hobby home uses."

Personal computers developed Only a few years ago the idea with inevitable technological calculators, was grasped, a large number of impressive several different strands inter-

The main categories of use very small compters are so for small computers overlap market, although Tandy, Comvaried, it is worth pausing to ask They are: for small businesses, modore and Apple are the main

suggest annual growth rates of about 50 per cent in the business, professional and education markets, and a huge 167 per cent a year growth for home computing.

size of the potential markets, it is not surprising that several very large companies with different backgrounds are now beginning to show an interest, graph (ITT) are among the largest companies shaping up to compete in the home computer

In view of the complexity and

competitors in the field at minals could become personal present. At the same time Hewlett Packard has established more complex type of equip-ment for scientists and engineers, while International Business Machines (IBM) is reported to have exported 5.000 \$95m last year.

### **Potential**

Manufacturers are now converging on this fast-growing market from at least six different directions. First, there are the manufacturers of calculators, including Texas. Commodore and Olivetti, which are moving from the top range of programmable calculators, often including a printer, to make more versatile machines which are, in essence, computers. Then there are computer terminal manufacturers, which are reduc-ing the size of their machines and adding to them intelligence and local memory. Eventually, some of these intelligent ter-

computers, especially for those who would like to link them to larger networks. Third, consumer electronics

exploit the potential for adding a processor and memory ("intelligence") to the domestic television set to make it into a home computer. ITT in Europe. for example, is marketing the Apple computer as an adjunct

to the television set. Fourth, there are the hobbvist manufacturers which are moving from the do-it-yourself stage into marketing complete systems, usually to be plugged into a television set. Apple and Tandy's Radio Shack have both moved into the market from this route. Then there are the instrument makers, notably Hewlett Packard, which are bringing out desk-top computers, particularly for scientific applications, involving monitoring and controlling a range of instruments and calculations with the results

that it is converging on personal computers .from two related directions.

Last, there are the manufacturers of larger business machines, led of course by IBM. which certainly can be expected to make desk-top computers for the business market as soon as demand appears favourable.

Without doubt it is the enormous long-term potential for expanding sales to home users that is attracting the main interests of companies such as Texas and ITT. However, home and business use of personal computers probably will overlap to a considerable extent. A small businessman or shopkeeper, for example, may buy exactly the same unit as is used elsewhere for playing computer games in the home, learning programming or other educational purposes.

For example, Commodore, which has sold 25,000 units of its Pet home computer, estimates that 80 per cent have been bought by small businesses and schools, and the other 20 per cent by private users. The Pet is sold in hi-fi shops, along-side video-recorders and cassette decks, as another consumer toy, yet one of its main markets has proved to be for processing accounts and for teaching people the elements of programming,

There now seems little doubt that computers can be brought down in price to start at £200 or £300, low enough to compete for the disposable income of a large number of the population. But the question remains: what would the average household a wide variety of applications, which probably will split into three parts; educational uses. pure entertainment and, in the longer term, control functions within the household. It is also

of programmable calculators, so medical diagnosis, legal consultation and even "psycho- programs as well as data, so analysis" by home computer.

in their working life. The home computer's capability for giving programmed instructions will also be used for many subjects quite unrelated to computing. Programmes for teaching mathematics, history and even languages will be developed. probably in conjunction with

Second, the entertainment ossibilities of home computers will be extended from television games to all sorts of information related to other pastimes, as, for example, data and analysis related to football or racing.

### Language

Third, home computers will be used to help household accounting, preparation of in-come tax returns, calculation of mortgages and as a convenient store for names and addresses and other data. Those who enjoy gimmickry will doubtless use the machine for switching lights on and off and controlling central heating, but most people probably will stick to the cheaper specialist gadgets for

this sort of function. The technology for all these would the average household applications is now being need a computer for? There are developed in the different Viewdata systems of which the British Post Office's Prestel is the first and the most advanced. Viewdata systems depend on linking modified television sets (or home computers) to a cenpossible that complicated "arti- tral computer data bank by ficial intelligence". programmes means of the ordinary telephone could be made available for network.

1,225

Viewdata computers can store that any home computer or a First, the educational uses television with a computer can be divided between pro- attachment could obtain pro-grammes intended to teach and gram packages for different develop computing skills themselves and programmed instruction in other subjects. Increasingly, people will want to learn
programming, either as a pure
programming, either as a pure
programming of for possible use
program to be used on a large range of different types of micro-computer, The system is programs especially designed for a mainframe or mini comteaching puter because a substantial part of the processing power of the home computer has to be used for the operating system. This correspondence courses and leaves less computing time institutions such as the Open available to execute particular programs. However, in practice this is unlikely to be a disadvantage because computing power and memory is becoming so less significant than the cost of programming. Moreover, in most business applications, the processing time is very small compared with the time spent putting in information or printing out the results. Consequently the relative inefficiency of this type of universal system will not be noticed by the kind of user for whom it is designed

The prospect, therefore, is that a large library of programs could be built up which home users would be able to hire very cheaply. Many of these programs will be written in such a way that the user is prompted by a series of natural language instructions and questions on his television screen. Therefore he will need only the most elementary knowledge of computing to benefit from them.

How long will it be before home computing with all these uses becomes commonplace? The answer to that question depends on the speed and skill with which software is prepared and marketed, and also on the development of the communica-tions networks for home computers which can be used at a reasonable price.

The market probably will build up from a core of selfemployed people who have substantial needs for record-keeping and accounting in their homes, but before long it is likely that the flexibility and potential to use the machine for helping the education of child ren and adults will make home computers as common as hi-fi.

# The importance of peripherals

pherals," which describes the equipment used in conjunction with a large computer, has become misleading in almost every

First, the equipment-including magnetic disc or tape units for bulk memory—is no longer peripheral to the main operation of a computer system, but an integral part of it.

Second, the value of peripherals is now generally much greater than that of the central processing unit itself. And, third, many so-called peripherals are now being given computing abilities of their own so that they can operate either in a federal system with a large central processor, or in some cases as specialised computing

In the U.S., the revenues from peripherals and terminals together account for nearly 60 per cent of all revenues from com-puter hardware (that is, excludprogramming (software) ant services). This picture is refacted in Europe.

4V , >

Nackintosh Consultants esti-

four largest countries, France, square. These chips can be Italy, the UK and West Ger- assembled with other circuits many, will be about \$5bn. Of on to a single circuit board to this about 70 per cent or \$3.7bn make a complete mini computer is accounted for by peripherals, for only a few hundred dollars.

Mackintosh also shows the substantial imbalance of trade in costs thousands of dollars. peripherals in mainly computer Europe, with estimated imports peripherals which are required by the four major countries expected to total \$600m this уеаг.

This clearly reflects the domiparts of the peripherals market despite European efforts to redress the balance.

The importance of so-called peripherals is especially emphasised in the new mini-computer based systems which are beginning to find a wide business market, and even more in the micro-computer systems which are following them.

Mini computers were designed originally for industrial process much cheaper than the larger machines they replaced.

because of to make it carry out a useful

These peripherals can be divided into two broad nance of the U.S. over many categories: magnetic memory units and printers. However, terminals consisting of a keyboard and usually a televisionlike visual display unit (VDU) have to be considered in association because, in small systems at least, printers and even magnetic tape or disc units can

task.

be integrated into the terminal. Magnetic discs are now developing in two directions. The smaller 5½ in "floppy discs" control and the main reason for have become steadily cheaper transplanting them to business and more reliable, so that they systems was that they were are now beginning to displace cassette tape units on all but nachines they replaced. the very smallest systems. The have no need to go beyond (page V) Now computer processors are floppy disc works in a similar discs. In the next five years,

puter hardware market in the of silicon only a few millimetres a spinning magnetic disc and a make important incursions into four largest countries, France, square. These chips can be tracking head which can "read" the mass memory market, paror "write" on to any part of the disc and can move automatically to the required track.

Disc units have to be made with extraordinary precision to units mean that bubbles are ensure that the head locates the trying to hit a "moving target" desired track on the spinning in terms of performance.

The capacity of the larger 8 in discs has ben continually in-creased, a trend which will continue as single-sided discs are replaced by double-sided ones. Currently these disc drives can store up to 570 megabytes of computer information (570m characters). That is equivalent to about 100m English words or a library of a thousand novels.

formation to the central computer at a rate of between 300,000 and 1.8m bytes a second. The higher speed is the equivalent of about three large novels every second.

For larger bulk storage, magnetic tape units and magnetic drums are still used, although many medium-sized installations computers in this man that in 1979 the total com- being etched on to a single chip fashion to the larger units, with magnetic bubbles will start to

ticularly in systems which have to be portable or must be excep-tionally reliable. However, the continued improvements to disc

The main development of printers in the next decade is expected to be the replacement of impact technologies mainly by ink-jet and laser Xerography methods. Print speeds are likely to continue to increase beyond the 200 characters per second achieved by the best matrix character printers today. The worldwide market for impact character printers is currently These units can transfer in- around \$60m, according to SBS Publishing of California, and will reach \$627m by 1981.

> However SBS expects that, by 1985 only 30 per cent of high-speed printers will mechanical technology. A des-cription of one of the challengers, ink-jet printing, will be found in the article on office

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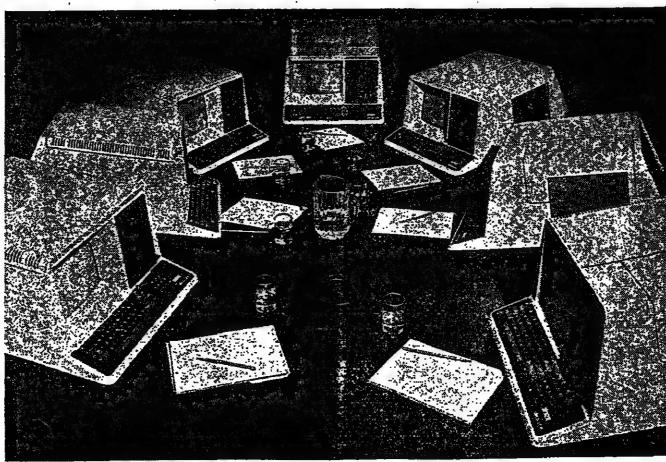
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# Smaller companies emerge

General Electric, the Radio and inconvenience of re-Xerox and Philips are among the strong companies which lieved would be a crucial market fore had two possible routes in the new technological age. open to them. The first, taken in the new technological age.

But despite their financial often very expensively. The reasons for their failures were to diverse, but all had a common ope thread: the difficulty of financ-ing a very high level of research development, and efficient support and service organisa-tion and rentals from a market where the margins were determined ultimately by the overpowering presence of Inter-national Business Machines. The companies which have survived the shakeout all had to demonstrate some extra qualities of management technology or mar-

However, since the fall of the Titans, a new generation of re-latively smaller companies has started to emerge as challengers of the established forces in the computer market Having learned the lessons of the last decade, they are avoiding the pitched battle with IBM and the other established companies of large computers as an alternative system.

Since all the major customers now have large data processing customers which were putting installations in operation, it is boxes round the electronics and

THE PATH along which the preobvious that no completely new marketing them as office ductor have all entered the pany has developed an office gramming (software) continues sent day general purpose comchallenger could hope to prise systems, were adding a very mini-computer market, and are system called System 400, which to rise. Software new represents much business away from establittered with impressively large liched systems and to value and all developing strategies for an is also IBM-compatible. but well over half the cost of many littered with impressively large lished suppliers if a change profit. were to involve all the expense

Corporation of America (RCA), programming and transfer to a new system. The new entrants into the tried to enter what they be computing market have there-

But despite their financial by companies like Amdahl and strengths all of them failed. National Semiconductor (in their different ways) has been build machines which operates from an external point of view like IBM machines. It is possible for the smaller companies to ride on the crest of technological developments, of semiconductor semiconductor components faster than IBM can. They have

therefore been able to offer computers and add-on memories with substantially better performances and lower prices than IBM. By agility, they have kept ahead of the giant and obtained a most respectable slice of the market. The other route for aspiring

processor at the beginning of the decade. Simple microprocessors have been developed in the last two years into sophisticated micro-computers consisting of only a small which would result from trying number of components on one to offer a completely new range or two circuit boards. The of large computers as an alter-semiconductor companies which were making the components. quickly realised that their

At the same time as technothe price was being driven in-exorably downwards. The component suppliers foresaw therefore that they would be pushed further and further into a corner in which they would be supplying a shrinking proportion of the value of total

Most of the major companies have therefore started to move into the computer market itself, starting with relatively modes, micro-computers, mini-computers, mini-computers and office systems. In all cases, the logic of this the impressive strength and determination shown by Texas must never be to place a greater and greater emphasis on developing total systems including software.

### **Emphasis**

These semi-conductor companies will not generally be in a position to challenge the systems capability of the large mainframe companies for a long time if ever. Nor, probably would they wish to. The general shift of emphasis in the market towards networks of smaller machines, each with considerable local, processing power, is providing ample opportunity for the newer entrants to challenge the power of the big battalions.

Intel. Fairchild, Texas Instru- largest IBM computers. ments and National Semicon-

logical advance was increasing among the largest semiconducture widening market for small quarters or more, according to the complexity of components, tor companies, in having as yet systems. Although, National is announced no plans to move into the sale of minicomputers. Its policy so far has been

based on the idea that, as a component supplier, it should not compete with its customers, volume" before it is overthe computer makers. However, in the face of strong competition from almost all its rivals, Motorola is being forced into a serious review of its position.

Among the latest contenders, Instruments must never be under-estimated.

vigour from two directions. In 1975, it bought a small company per cent stake in Magnuson. called Exsyco, which had been Meanwhile, Hewlett Packa started by a breakaway group of ex-IBM engineers to make IBM compatible mainframes, Only a year later, it had shipped its first system to Itel, the computer leasing company. Now National has shipped about 200 machines, employs 400 people on this side of the busine is planning to double the size of its plant this year. Even more significantly, it is working on the development of a machine which will emulate the

attack on the office systems which is designed to sell on its complete systems, and in a few market. Motorola is alone own merits in the large and years' time it may be three in the next year or so, it realises that it is engaged in a win or lose race to achieve "critical whelmed by its competitors. By the phrase "critical volume" it means sales of \$400m to \$500m a year, which is thought to be the minimum needed to sustain the research and support not-

work required for a viable computer operation. Another example of a semiconducter company which is moving into computing is Texas Instruments, which is developing its own family of mini computers and micro-computers. National Semiconductor is Fairchild is aiming to win a attacking the market with great stake in the IBM-plug compatible market through its 30 Meanwhile, Hewlett Packard

is moving into the computer market from the different direction of scientific instruments and calculators. It has designed a complete office system which is certain to be a strong challenger at the lower end of the

Designs

Similarly, Dutch Philips, ITT, the General Flectric Company (UK). Siemens of Germany, and Olivetti of Italy, and several other large companies have designs on the office market. Although the computers which they will be selling are small by present-day standards, it must be remembered that they are the size and power of large mainframe computers of only a decade or so ago. The office sector of the market has some special characteristics which are dealt with elsewhere in this

Survey.
In addition to the semi-conductor companies which are moving into computing, the larger corporations converging on the office market, and the IBM plug compatible manufac-turers in the large mainframe market, there are the software companies, some of which are now beginning to emerge as significant indépendent forces in the market.

This is a result of the continuing trend for hardware (machines) to become ever cheaper, while the cost of pro-

expecting to achieve sales in software houses which have its computer division of \$200m designed a system for a particular application, particularly a complex system, using standard mini-computers, may buy in hardware for resale is a complete systems package. From small step to start manufactu ing some of the bardware to adapt the system for special

purposes. Logica and Systime are two British examples of setting this route.

Thus, new compenies entered the computing min from several different dies. tions. Taken together, ther make the choice very much wider for a prospective purchaser than it was a few years ago. The Diebold Research Programme, for example. estimates in its Research Repor E167 (Diebold, 5/6, Argelt-Street, London W1) that a typical larger company is the dealing with about twice as many computer vendors as it. was 10 years ago.

The cost and complexity of developing then operating systems for large maintrance computers is likely to prohibit. even the largest companies out-side the computing industry from trying to force their way back into the market. Indeed, the forces which saused the demise of RCA's General Elec-tric's and Xerox's compaling operations are as petent as ever, On the other hand the rapid developments of technology are allowing enterprising companies. to find many profitable sectors. of the industry without on-fronting the largest companies, head-on (even the plug com-patible manufacturers are only competing with IBM hardways. in selected parts of its range).

On the other hand it is yery likely that industry will see the entry of some very big companies indeed over the next few years. The giant AT and T could, for example, become an could, for example, become an important rivel to IBM i it were to obtain a change in the regulations which prevent it from competing in the computer. matket. If that should happen —and it is still a large if," well anything could happen.

# Unemployment debate lacks information

THE DEBATE about the years is to go on training net job gains after computerisa- adopting the new technology employment consequences of another 3,000 computer software tion, although the rate of rapidly will be far worse for revolution has not yet reached year. anything like a serious level.

So far, there is very little to Ministerial speeches by and large content themselves with the view that those who predict terrible consequences are "exaggerating." Trade unions or academics, suspicious of the technology, tend to magnify the suddenness—if not the size -of the impact.

It may be that even after the next four or five years, when impinge itself upon working life and labour demand, no one will be any the wiser about its total effect, or any more able to make predictions.

What is much more likely is that a number of care histories last year: "We will have been built up; and it yet to be convinced will be more possible to say, for micro-electronics. will example, whether the automation of clerical office work normally means a net job loss or

Ignorance of the outcome does not entitle the official training agencies, employers or trade unions to stand by helplessly while the changes occur. grammes to find the personnel to manage the technology. the C Part of the £100m that the scare

Government has set aside for

Some of the trade unions, otherwise have been. too, have begun to teach themgo on: Government reports and selves about micro-electronics and to devise policies for coping with it: that process is certain to intensify. For the moment the lack of real information has left them with little choice but to prepare for the worst, despite official declarations that there is no sign of an employment mean higher productivity—less

official summarised by the Central Policy Review Staff, in this extract from its report on the social and employment in November "We have convinced that consequences be a major factor for the worse, unless the general prospects for employment make for increased unwillingness to accept technological change."

The report said those who had predicted substantial unemployment-figures of 3m to 5m have been quoted-did not It is to the Government's credit back their forecasts with contract it has done so much to encourage debate about microelectronics and started to spend money on special training prowould be displaced by the new Furthermore, said the CPRS, the last "computer scare" proved a false alarm: there were in many places

the so-called micro-electronics experts by the autumn of this increase in employment was employment than any of the consequences of adopting it. probably lower than it would

> The CPRS also takes the somewhat optimistic view that cism with which the CPRS technological change has always report has been received by been associated with higher trade unions. Unions such as economic growth and rising real incomes. "This could be equally true of micro-electronics," it Says.

Although microchips would workers to produce the same output-there would be a new range of cheap, mass-produced would stimulate employment generally

But the CPRS report qualifies its cautious optimism in one or two passages in such a way as to sound a serious warning.
First, it points out that there will be, whatever happens, a serious employment gap in the 1980s, for demographic reasons. Britain is trying to find jobs for large numbers of new entrants

the labour force already, quite apart from trying to prevent the loss of its industrial has been relatively weak in the past in exploiting new, cheap, mass-market products: and it is from exploiting these markets that much of the employment

growth would have to come. the reports that have come from Whitehall in recent months that the consequences of not

Thirdly, it warns - as do all

Technical and Managerial Staffs and the white-collar section of

These two latter points ex-

plain the considerable scepti-

the Association of Scientific, the Engineering Union, TASS. have seen enough evidence of decline in traditional UK manufacturing industries in recent years to be less than sanguine about the extent to which new technolog decline.

Broadly speaking, they find the CPRS view a complacent one. They doubt that the analogy with the computer revolution is a fair one: computers were, and are, expensive pleces of capital equipment. Employers have taken their time in introducing it. But microprocessors are cheap and allegedly all-pervasive.

Unions argue that companies will quickly be able to calculate their savings in labour costs when the microelectronic equip-Secondly, it notes that Britain ment is brought round by the

U.S. experience of the automation of offices seems to suggest so far that employers are attracted more by the sheer productivity gain than by any saving in staff: but the theory is little tested there—and in Britain scarcely at all.

nuences of not More obviously, there is the CONTINUED ON FACING PAGE

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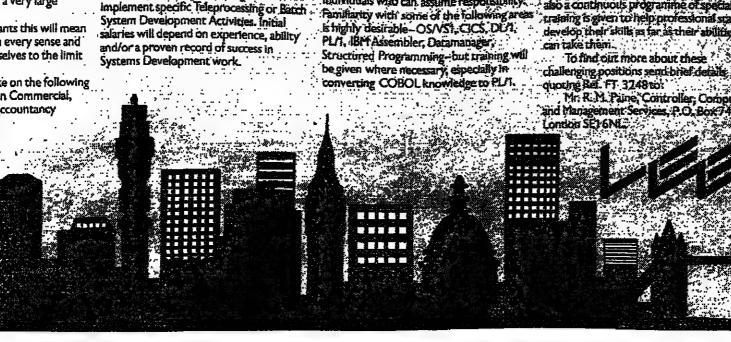
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# Financial Times Monday February 19 1979

# Cost is makers' dilemma

COMPUTERS HAVE progressed marvellously in recent years; computing has advanced hardly at all. Today's machines are smaller, cheaper, more powerful and more reliable than their predecessors, often by orders of magnitude, yet these benefits derive from increasingly sophisticated micro-electronic circuit fabrication techniques and economies of scale in manufacturing rather than any fundamental changes in the way computers compute.

In fact, according to Glenford Myers of the IBM Systems Research Institute, New York; Except for a few machines, for example some of those made by Burroughs Corporation, there have been no advances in the computer architectures of current systems since the 1950s."

What is more, there is little demand among computer users for such advances. Such is the size of the investment users have made in existing conventional hardware and software that there is no real prospect of radical change in the fore-

Nobody is anxious to repeat the experience of 1964 when IRM launched the System 360 series. Although a remarkable terbnical advance, it involved users in time and expense because programmes had to be rewritten to run on the new

So computers will continue computer—is the single element to get smaller and cheaper but of computing systems which is if there are remarkable techninot declining in price, but in So computers will continue if there are remarkable technical advances they will be well hidden from the user. Therefore, the question of future trends in computer technology can be seen as: what are the realistic limits of miniaturisation, and how will computer manufacturers respond to the problem of selling equipment which is becoming worth less and less very rapidly?

We are very far from the limit in micro-electronics. The silicon chips which lie at the heart of computer memorles and processors are fabricated at present using optical methods and visible light to print patterns on the surface of the ilicon. The practical limits using such techniques are close to being reached, although with further refinement it should be possible to use visible light to create a chip with the com-plexity of the 64K RAM-64,000 ual units of memory on a

### Proven

X-rays or electron beams can he used to create even smaller. elements. IBM scientists have aircady created a wire with proven electrical integrity with a diameter of only 150 Angstroms (half of one millionth of an inch). However, there are those who believe that for all practical purposes, the limbs set by visible light are adequate.

For example, Iann Barron, for example, tann Barron, director of strategy for Inmos, the NEB-backed micro-electronics venture, believes that the 64K RAM level of complexity is adequate to build a complete "computer-on-a-chip" -processor, memory and connections to the outside worldand it is this that he sees as the key technological develop-ment. He thinks it is so important that to describe it he has coined a special name, "transputer," derived from transistor and computer.

But whether semi-conductor companies stick at the level of the 64K RAM or invest time and the considerable resources necessary to achieve greater complexity on the chip, there is no doubt that the power of computer systems will continue to go up, while the cost will continue to come down. It is generally reckoned that the improvement in cost performance is doubling in less than five

Or to put it more graphically, George Champine of Sperry Univer calculates that in 1960. the cost of one man-hour of labour would buy the execution of 1.4m instructions or the storage of one megabyte (8,000 individual items) of data on direct access storage for two days. In 1977, Champine goes on, the cost of one man-hour of labour would buy the execution of 225m instructions or store one megabyte of data for 15

Another equally graphic illustration is the 4300 series which IBM released only three weeks ago. Data processing specialists are still arguing over whether these machines represent simply a stop-gap or a whole new series. What is certainly true is that they are stunningly cheap and cost effec-tive compared with existing products. For example, the topend 4341 processor runs at about 1.7 times the speed of the existing 370/148 but the complete system costs only about

as much as a 370/138.

The dilemma for IBM—which supplies about 70 per cent by value of all the computing machinery in the world—is how to make money out of kit which regularly doubles in perform-ance while halving in price. All other manufacturers, if they are to stay in the game, are in the

other manufacturers are waiting

		<del></del> -	enimates for 19			Reported dat	a
Rank	Сотрану	DP revenues \$m	DP revenues (% of total revenues)	U.S. DP revenues (% of total DP revenues)	1977 total revenues \$m	1977 net tucome \$m	Number o employees
1 1	International Business Machines	14,765	81	50	18,133	2,719	310,155
.2 1	Burroughs	1,844	87	59	2,127	215	51,295
3 1	NCR	1,574	62	2. EX	2,522	144	64.000
4 6	Control Data	1,513	66	66	2.301	63	46,000
5 8	Sperry Rand	1,472	45	59	1,270	157	85,684
	Digital Equipment	1.059	100	64	1.059	109	36,000
	Honeywell	1.037	36	68	2,911	145	75.840
	Memorex	405	90	60	450	56	8,823
	Sewlett-Packard	402	30 .	54	1.360	122	25,100
10 9	TRW	350	II	77	3,264	154	87,152
	(tel	286	TI	99	402	32	3,900
	Data General	255	100	68	255	29	8,590
13 3	M	240	. 6	80	3,980	413	80,000
	Automatic Data Processing	238	97	92	245	23	8,000
	Kerox	209	"2	100	5.077	407	103.977
	General Electric	200	ī	80	17.519	1,088	384,000
î7 }	Amdahi	189	100	81	189	37	1,700
	Computer Sciences	178	75	80	235	12 -	7,300
10	torus Technology	162	100	09	162	11	
	Storage Technology Fexas Instruments	160	100	94	2.046	117	3,988 68,521

affairs with false floors to hide

away the bundles of cables

which shackled the machines

one to another and water-

cooling equipment to remove the heat built up during

Eugene Amdahl, formerly IBM's chief computer designer,

showed the way round these problems with machines com-patible in terms of software with IBM but using advanced

technology. He was able to air cool has large processors rather than use cumbersome

water coolers.

way to medium-sized machines

which fit unobtrusively into the

require no special fittings. It means, for example, fixed disc

end to tape storage (which is

Considerably research

already being carried out in

reliability of computer systems and it is perhaps no coincidence

ordinary office and

a tape fall-back

The 4300 series points the that in the past two years the

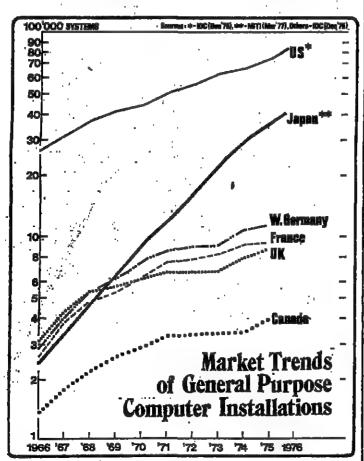
for people who spend £5,000 today on equipment that would have cost £50,000 five years ago to discover that they cannot make it work—and then make their money through selling tha necessary software.

Software—the programs which run the computer and run the applications loaded on to the fact, relative to the price of hardware, becoming more expensive. With unbundling, the separate pricing of hard-ware and software, it is expected that manufacturers will make their money out of providing the software to run

relatively little. Murray Laver, former board member for techfor the Post Office, describes this as "zero cost data processing." He also describes oftware as "pure crystallised

### Cumbersome

There are suggestions that with its 4300 series, IBM will move towards the total unbundling even of operating software—the software that runs the computer system. But above all, 4300 series points to future. In the past, computer their hardware that will cost rooms were vest custom-built



# **Employment**

CONTINUED FROM PREVIOUS PAGE

not be in the older indus capital goods industries pro-triellsed nations, such as vided they can beat the com-Britain, that are looking for petition from imports." industrial regeneration.

nations such as Britain? Any worker displaced by cheap imports of textiles, motorcycles, television sets in

recent years will take a pessi-mistic view of Britain's ability to seize and hold new markets. Incidentally, the suggestion that the cold shower of competition will invigorate British industry is no longer fashionable—perhaps because the cold shower circular field to have shower signally failed to have the right effect when Britain joined the European Com-

### Rapid

Today's prognostications are less joyfully worded; a very conditional attached to every forecast. For example, the latest Treasury bulletin on the economy, devoting its main article to micro-

electronics, has this to say: "In both manufacturing industry and services there will be job losses due to higher pro-ductivity or the outdating of existing products; and in some cases these effects will be sub-

stantial and rapid. "But against this, jobs will be created in the production of silicon chips and in software systems and applications. Early There is a view that IBM and replacement of plant and machinery with new equipment

possibility that many of the jobs incorporating micro-electronics created by micro-technology will will create extra jobs in the not be in the older induscrible and capital goods industries pro-

It is this proviso about British industrial regeneration. In other words, much of the displacement of labour could be in the form of job exports— traditional manufacturers failing in the West and the new manufacturers springing up in the Third World.

Thus, the net job effect may be a positive one, but will it revive struggling industrialised nations such as Britain?

Thus, the net job effect may be a positive one, but will it revive struggling industrialised nations such as Britain?

The this proviso about British competitiveness that must cause competitiveness that m the answer. If this is a pro-tectionist philosophy, how much more so will it seem once the great international trade in micro chips and products gets under way.

So far, official trade union pronouncements have been careful to avoid the charge of short-sighted conservatism. The new technology is welcomed provided that strenuous efforts are made to deal with the indis-putably difficult transition.

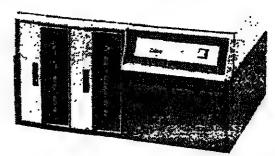
Some unions see the logical consequence of higher automa-tion to be shorter hours. or weeks, or working years. Some take an apocalyptic view, others have no view at all. There can be little doubt though, that trade unions themselves will influence the rate of change by the extent of their opposition at local level to new automation.

It is in everybody's interes that the unions—not the civil servants of Whitehall-digest the technology and take some view about its effect on jobs Someone will have to organise the change if it is to be peace fully conducted: a defensive and passive trade union reaction will probably only he avoided if workers have a real say in the

Christian Tyler

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Computer Society's

Awards for technological advance have been won by pro-jects in this area. In 1977, there was Prof. Brian Randall's

work at Newcastle on systems

which recover from failure and

in 1978 Dr. Roger Needhams' work at Cambridge on the CAP

projects, a machine and an operating system proof against

accidental or malicious damage.

Computer systems of today work in a linear fashion, that

is they process instructions one

after another in the manner of a model first set by John von

Neumann, one of the fathers of modern computing. There are a number of research efforts

in progress to improve on this scheme of things. At a number

of British universities, re-

searchers are attempting to implement "dataflow architec-

ture" where there is a network

of machines through which data

flows. Processing occurs when

ICL-distributed array processor

in which processing elements are intimately associated with

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processing problems — meteorology and the like — and is used with ICL's biggest com-

to the original point of users'

parallel processing.

used to run a pay-roll.

mass-storage devices which are ology and the like — and is relatively tolerant of poor used with ICL's biggest com-operating environments and an puter, the 2980. But returning

making possible

Alan Cane

Editor, Computing

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ZILOG (UK) LTD. not), though there are those dislike of change, there is no who wonder how a security doubt it could be used for back-up can be provided without simpler things, and Ed Mack, Nicholson House Maidenhead, Berkshire SL6 1LD ICL's director of product Tel: (0628) 36131 strategy, would love to see it

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# Towards thinking machines

headed companies are begin- gram, of course, showed endless an answer. ning to take more than a passstudents to tempt them into in the conversation. corporate research laboratories. When the progra

In several other university centres and in the research departments of large corporations like International Business Machines, a ferment of activity has been generated by the possibilities of using

This may seem strange, even of the apparent successes, have human problems which it was seemed to demonstrate the supposed to be asking questions inherent limitations of com- about.

puter programming as a As Weizenbaum explains in puter programming as a As Weizenbaum explains in simulation of the methods of his book "Computer Power and the human brain.

Weizenbaum at the Massachus- words or phrases to trigger off subject matter under discussion. setts Institute of Technology, a seemingly intelligent response For that reason, much of the to simulate psycho-analytic ses- from the computer. Weizenbaum linguistic analysis which has

AT STANFORD University in sions. The computer was so good had in fact chosen the psychothe sunny valley between the at "psycho-analysing" its analytical model for his profine and San Francisco bay, "patients" that Weizenbaum disgram because it provided a confinite sting in itself, is confield of knowledge.

AT STANFORD University in sions. The computer was so good had in fact chosen the psychothe been undertaken by artificial clear definition of a relatively advantage over a human expert that it is tirelessly methodical interesting in itself, is confield of knowledge. some 200 postgraduate students covered that many people text in which words are used sidered by many researchers to are working on the problems regarded it as almost human, rather vaguely and in which the be leading up a blind alley. of how to make computers and even requested private computer could always issue a artificially intelligent. interviews with it to give confi-vague prompt like: "Give me an Work on the project is now dential information and receive example," or "Tell me about so far advanced that many hard-support. The computer pro- your father," when stumped for

patience in asking questions, ning to take more than a passing interest. Indeed they are so interested that they are offering large salaries to the best answers and bring them up later without producing ludicrous in the conversation. For this reason, the ELIZA When the program became applied to many other and more generally known in 1966, Pro-sophisticated attempts fessor Weizenbaum found to his simulate certain aspects of horror that many competent human behaviour. A programme

medical authorities were recom-mending that ELIZA, or com-puter programs like it, should which gives a very passable be widely adopted in hospitals imitation of a paranoic patient "artificial intelligence" in the and clinics as an aid to the under interview. However, one treatment of patients. However, of the reasons for the success the creator of this Frankenstein of this programme is that whenimplausible, to those who have therapist knew that his pro- ever the questioning becomes a nodding acquaintance with gram was in a very fundamental so keen that the computer gets the series of failures encounsense a fraud. The ELIZA pro- out of its depth, it can simply tered by researchers into gram did not even have an revert to one of the idees fixes artificial intelligence during "understanding" of natural lan- of the assumed paranoic personguage, let alone of the intricate ality.
human problems which it was PARRY, like ELIZA, demon-

strated, in some respects, the limits of possible understanding by computers. They showed that computers can manipulate language plausibly in certain Human Reason" (Freeman and One colourful example was Co.. Reading) the program limited contexts, but they can-the programme called ELIZA, depended upon a series of clever not "talk" sensibly unless they developed by Professor Joseph tricks which enabled certain have a thorough grasp of the

interesting in itself, is con-field of knowledge. sidered by many researchers to

This point was emphasised by a spectacular programme written by Terry Winograd and described in his book "Under-standing Natural Language" (New York, 1972). The programme called SHRUDLU enabled the computer to direct an artificial hand by means of a television camera eye to change the positions of a number of boxes and pyramids on a table. Moreover the programme was able to respond to commands in natural language, like "Move the red pyramid onto the larger red box." It could deduce the sequence of manipulations that were necessary, including the moving of other objects in the space. It could describe what it had done,

### **Possibilities**

its field of view.

Even more interestingly, the computer could learn new con-cepts within its limited world. For example it could learn that a pyramid placed on a box re-presented a "steeple" it could learn the syntax of ownership: "This steeple is mine. That one is yours." Furthermore the computer was able to make quite complicated inferences. On the command "Put it down," for example, SHRUDLU was able to deduce from the previous context which object the word "it" referred to.

Programmes similar to SHRUDLU have been developed for industrial use, but usually their purpose is mechanical manipulation or assembly rather than intelligent thinking From the point of view of artificial intelligence research, the SHRUDLU experiment showed that a computer could indeed behave as intelligently as a human being in an extremely limited conceptual framework. When SERUDLU is transported out of its tiny world of coloured blocks and pyramids, however, the programme is completely unable to cope.

The conclusion which was reached by Winograd and by other workers is that development of computer intelligence should start less from an effort Although the computer pro-to reproduce generalised intelli-gent abilities, but from a very or intuition, it does have the

From this perception has developed a range of so called "expert programmes" whose aim is to simulate the analysis and advice which would be given by a human consultant when faced with a specific problem. One fruitful area is medical diagnosis, where expert programmes are already proving to have good performance when the results of their diagnoses are measured against the opinions

of live consultants. One of the most fruitful of the modern approaches is through what is termed " rule based programming." This means that the computer programme is built round a set of rules, which the computer calls into play rather in the manner of a bureaucrat in a civil service department. The application of one rule will trigger the use explain why and give a com-plete account of the configura-tion of all the objects within of another rule, which will in turn bring other rules into the problem. The computer will work methodically through the structure set out by the programmer, but because of the rapidity of its operation, the route it will take could not easily be predicted by a human

in advance. Once an expert programme has been set up, it can be applied with some modifications to different fields of know-ledge. It builds up its detailed armoury of facts and methodology by first interviewing a real live expert.

In the case of geological testing for oil, for example, the computer will ask the live expert about all the physical and chemical tests which should be made, the order in which they should be made and the further tests needed, depending on the results obtained. Then finally it will ask how to assemble the results to predict the likelihood of finding oil and its whereabouts.

When the computer expert program has obtained and codified all the information which it needs from the human expert, it is ready to give consultations. An oil company prospecting for oil would, for example, be taken through a routine of question and answer by the computer on the tests which hat been made, and would then make a prediction about the likelihood of

striking oil.

slightest scrap of evidence which it has been told. In very specific applications, therefore, the computer program may be as reliable as a human and

usually much cheaper. Similar programs are being developed for military applications where they may be able to give extremely rapid up-to-the-minute assessments of the resources of arms and men available to a commander in a particular theatre of war, and even to make an assessment of the tactical situation which faces

One of the main tasks at present is to devise systems which will allow non-computer experts to ask the system unexpected questions which would normally be handled by an intelligent aide. For example, a general may wish to ask what if reinforcements are what it reiniorcements are delayed two hours?" The computer must reply with the consequence for supplies of ammunition, food, communications, and probably much more besides. The general may not be satisfied, however. He may want to ask: "How did you reach that conclusion?" An intelligent aide could answer intelligent aide could answer that question whereas many computer programmes could not. However, the application of rule based programming allows the computer to tell the general which rules were applied in reaching the conclusion, From this he can estimate the assumptions, and perhaps test them by asking further questions.

From this an "intelligent". conversation can be built up, and although the computer would never show the dash and inspiration of say, Napoleon, it might have given him some useful cautions on the logistics of marching to Moscow.

Such systems are now beginning to emerge into commercial significance, largely because of the continual fall in the costs of computer processing power and memory. Applications in law, accountancy, medicine and indeed in most professional fields are opening up.

These systems are a long way away from the general purpose humanoid robots of science fiction. But some of the systems look sufficiently life-like to give serious pause for thought.

# Europe lacks united front

CAUGHT BETWEEN the need and there is the rub. As soon as appears that as matters stand tionals and the ever-present threat from Japan, Europe's officialdom, and senior civil servants in the various member countries in constant contact with Brussels, have yet to present anything like a united front in the computing industry. True, great advances have been made so far as the service bureau and software industries are concerned. But these are

brain-intensive to a high degree,

to be gentle with powerful im- a hardware producer, especially and whatever is done this side planted offshoots of multina in these lean times, can claim of the Atlantic, by 1985, Ameritionals and the ever-present to show that government or can companies with their worldsupra-national authority actions are threatening him, or even hampering him, then he will win a hearing and will be able to bring powerful lobbying action to bear.

Last year's report and plan for action in advanced components prepared by Mackintosh Consultants primarily for the German Government, but consulted by all European authorities, has had little or manufacturer-independent and no effect jowards producing a Common Market approach to the data processing problem, despite the crucial importance of advanced components for the development of processors and

their memories, as well as the discs, printers and tape decks which serve them. As in the early puters, the approach remains narrowly nationalistic and no one in Government appears to be prodding "national" companies to seek European bedfellows—the trend has been, and still is, to conclude some form of alliance with an American partner despite the difficulties and dangers of operating in that

This is not to under-estimate the difficulties of planning and executing a European-wide approach to an important probem-indeed the experience of the Comecon countries with the much-delayed Riad series of computers made in several of the Eastern bloc nations, but coordinated from the USSR shows how difficult a multi-country approach can be, despite the tighter planning control possible throughout Comecon.

### Failure

It would be wrong to blame the Eurocrats and dishonest to attribute the failure of European ventures entirely to Gallic pride. Both major parties in Britain must take some respon-sibility for the failure of at two European-oriented

ICL was on the point of acquiring or merging with Machines Bull with a dowry, or purchase price, of about £90m just before the advent of the last Heath Government. But as IRC (Industrial Reconstruction Corporation) was anathema to the Conservatives since it was a Tony Benn brainchild and as IRC was the marriage broker, the project failed.

And who, under the Wilson Government, prevented the close association between ICL and Unidata (Philips-Siemens-CII) that would have made of that group the European and international force it never

True, ICL management had come to fear and detest mergers, with good reason. But ICL would have been by far the most powerful partner in the grouping and that quartet, with hacking from the greas in Europe spending the most on computer installations and applications, would have enjoyed a "captive" market comparable in some degree with that pro-vided by the U.S. Government Genera) Services Administration.

It is still not too late to achieve greater unity of purpose. The justifying figures for such action are there for any politician or civil servant to consult. Whether they are culled from forward computer projections. or from growth of micro-electronics, the inference is the In the latter case, it

wide ramifications will hold 45 per cent of the market, Japan per cent and Europe the

But the rump would still be worth a great deal — the European market for active components alone in 1982 will be close on \$4.9bn, according to Mackintosh-and this includes large scale integrated circuits and micros. That is worth fighting for! .

The same study group puts Europe's total computer market in that year at \$11.2bn -- con-siderably below parallel siderably below parallel American projections. That again is worth fighting for but one knows already that 80 per cent of the European market is pre-empted by U.S.-

Meanwhile, among the Euroeans, France is not doing too badly with possibly as much as £50m in the black to be expected this year from computer operations, while Britain's computer balance for 1979 could be £300m and more in the red.

Officially, for 1978, the French companies working in sectors outside large machines increased their turnover by 25 per cent to FFr 2bn.

This covers minis and peripherals of all types including data capture equipment, add-on memory, floppy discs and the

Growth in the French controlled sector, spurred on by the "contracts for growth" awarded to five groups under the Plan Péri-informatique, is likely to be at better than the 28 per cent rate experienced over the last 18 months or so since the full effects of the "plan" began to be felt.

This is because the Government, last December, put a further £270m into the national economy to encourage the use of many of the products of this industry throughout education, as well as in office equipment for companies of all sizes and industries in general.

Through Siemens, which has had the lion's share of Government computer support funds over the past ten years, Germany can claim a reasonable proficiency in microprocessor technology. Siemens has displaced IBM in many important German governmental and in-dustrial sectors. But its impact on the rest of Europe, except perhaps in process control and machine tools, is negligible.

Siemens has to some extent solved its inability or unwillingness to tackle IBM on very large machines by agreeing to support big Hitachi "Chinese copies" of the top of the range IBM machines. Whether this will be any help in the rest of Europe remains to be seen. The other Europeans have no

real significance in large machines. But Philips, though battered by its huge losses in that area, is nevertheless the biggest supplier of small business machines in Europe and, worldwide, the biggest supplier of banking terminals. DataSaab from Sweden is

Supplying financial terminals or small computers that have military reliability and Norway. through Plessey, is marketing the fastest military microprocessor so far built.

There is plenty of talent in Europe and new markets that the new world covets. It is time for European companies to stop bidding for moribund U.S. firms and put their EEC house

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### **FINANCIAL TIMES EUROPE'S BUSINESS NEWSPAPER**

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# Banks unhappy with systems offered

ANY TERMINAL equipment face between all four comprocessing at NatWest, says supplier wanting to make an puters. supplet valuing to make an impression on the banking sector could do worse than spend three weeks in the company of Mr. Gordon Hague, general manager of Lloyds Bank's management services division

computer equipment suppliers. He comments: "The greatest problem we have at the moment is that manufacturers' design staff sit in their little cubby holes in the north east corner of the United States and design equipment without finding out what the customer in the UK or Europe wants to do."

He says equipment offered to British banks is generally de-signed to suit the needs of U.S. banks, which do not face the telecommunication problems posed by the branch systems in

d. They were fascinated, hadn't seen a problem quite like it: connecting 4,000 terminals in the branches to has greater relevance. four computers with an inter-

"We had to go to an outside organisation to get switching equipment designed." He believes companies which

design mainframes and terminals should also design the The banks have resources to support large investment in computer systems and an enthusiasm for growth which can be satisfied only by using these systems. But Mr. Hague feels the British and Continental banks are neglected by computer equipment suppliers. ment to go between them. And junior people who can only he believes they should pay work a machine and whom we isn't it?

### Staff

Lloyds and other banks in the UK have used computer systems effectively in sustaining a rate of expansion which implies a doubling of their business every eight to 10 years. In the early 1960s, staff at Lloyds Bank could manage up to 350,000 cheques in a day. Now the bank handles up to 2.25m a day.

National Westminster has in-"That's a fundamental problem and I've banged every cent since 1970, while its manufacturer pretty hard.
"The Board of one of the big computer companies came big computer companies came Recruitment has been concentrated." trated on overseas activities rather than the domestic operations, where computerisation

Mr. Brian Kyte, head of data ing on the next step towards

computers have helped staff by of an electronic funds transfer taking over the drudgery and system which would involve the taking over the drudgery and by evening out the workload. The bank has not been tempted to match its intelligent machinery with less intelligent

" We have not gone recruiting would not like ever to meet a customer," he says.

While the banks have increased their capacity without proportional increases in staff by using computers they are increasing their availability to customers and relieving the pressure on office space by installing card operated electronic tellers.
Suggestions that the banks

lower cost to each bank were dismissed by the hawks of the banking sector. They see this equipment as a means of gaining a competitive advantage over their rivals.

Mr. Trayor Nicholas, general manager's assistant at the management services department of Barclays, says the electronic teller schemes are "too far down the line" for the system to be put on a noncompetitive basis.

But the banks are co-operat-

installation of terminals at points of sale. These would enable customers to pay retailers without using cash or

If the banks went their own ways they would not only have to bear enormous costs alone but would have to convince retailers to accept the installaeach bank.

As it is Mr. Nicholas expects the question of who will pay for the system to be a stumbling block. The study is nowhere near deciding on costs, but there will eventually be a lot of discussion about who pays for

should co-operate in the He says that another aspect development of a shared of the system which will need electronic teller system, so careful attention is whether the achieving greater distribution at idea of instant payment is lower cost to each bank were sufficiently popular. He points dismissed by the hawks of the out that some businesses survive on cash flow.

And for all the enthusiasm displayed for electronic funds transfer in some quarters the cashless society is still a long way off. Mr. Nicholas finds evidence for this in the fact that although cheques and credit cards have been around a long time more than 80 per cent of transactions are conducted with

Paul Smith

# Larger memory devices

memorles have impinged on the public consciousness in the UK very rapidly. in the past year, in part because the Prime Minister has given micre-electronics the official status of constituting a revolution, in part because Immos, the depend to a considerable degree semi-conductor company which upon an upward trend in com-iz funded by the National Enter-puter sales. announced that one of its major products will be an advanced the computer market is set for semi-conductor memory, of the type known as the 64X EAM.

At the same time, the joint ports and analyses. For one

though initially they would be of the type known as CCD. Finally, a number of comment see as the key one in the panies, in the U.S. and Japan, field, is, to gather momentum, have, over the past year or two, then there will be an increasing shown a growing interest in a demand for more and more engaginally known as the which will be deployed in more magnetic bubble, and which in and more operations, both in certain respects is claimed to the office and in the factory. he superior to the types re- Again, the progression

presented to the observer of the memory market, and indeed it still-experimental System Xappears that there is confusion in the market itself. However, most companies and industry analysis agree that the markel,

then these hopeful projections

That, too, appears to be the case: IBM's own hunch is that Principle Camers and Institu-ment to produce GEC/Fairchild computer periodicals us the tion with less than four times taking three or even four years. has said that it, too, would be fastest prowing electronics the density of the current. This will take different types

advanced aremories, sector-byfer. Further, if the trend towards distributed processing, which memory which is logic and memory in devices

towards all-electronic, computer-There is thus some confusion controlled telephone exchanges resented in the observer of the —represented in the UK by the will also constitute a major growth market for memories.
If is with this perspective, indeed, that the semiconductor

Since a major market for in the West European memory memories is in computers, both market in the 1980s.

However, the developments in

in the U.S., Japan and Western manufacturers are establishing will begin to enter a declining Europe. for semiconius for bases in Europe, especially in production period after some

or hope for, significant growth

memory technology are, paradoxically, likely to he rather slower in the years ahead. Memories are measured in units called "bits": in a few years, the density of memories has and the same time of the major case; Isan's own numer is that the density of memories has the computer market is set for leapt from a few hundred bits an ew growth take-off, a hunch in the mid-late sixties through confined by a number of redained by a number of redained

> standard. Now, the major technological struggle is the introduction of turn, become the "industry standard." A number of com-panies have brought such devices on to the market, or are about to do so. The Japanese company Fujitsu was one of the first to do so, while Fairchild has had a 64K CCD memory (see below) in production for some

> IBM has introduced its own 64K RAM (as usual, for its own use) and ITT is testing its 64K RAM, as is Texas Instruments. Next year, the 64K will begin to displace the 16K, and the latter

ELECTRONIC memorics over the coming the UK, or expanding their years of strong increase (though mpinged on the years will grow rapidly, possibly existing bases: all of them see, there will still be a multitude of uses for it, as there still are for the 4K and even the 1K: no one advance in memory devices entirely displaces the previous innovations).

However, while the expertise in the manufacture of memories continues to grow, and while storage capacities will con-tinue to grow while all about it -as access time and power dissipation—continues to shrink, still it is believed that this year will mark the end of the linear growth in memory size, with an effective quadrupling of storage size every two years. The quad-

of memories in different ways Until the advent of the bubble, the CCD, or charge couple There are now 64K CCDs in production and ship-ping (Fairchild is the leader in this technology) and a 256K bit chip is expected next year. However, a lm bit chip—the next stage

As for the RAM, or random access memory, now arguably the most popular storage device. the 64Ks are only now in test. a 256K RAM is not expected before 1981/2, and a 1m bit RAM will be in the mid-1980s. or later.

But speeds are increasing, and the traditional speed edge beginning to be eroded by the dynamic RAMs. The dynamics are expected to show access times of less than 100 nanoseconds (1 nanosecond =1 billionth of a second) in the coming years, while new tech-niques might get that time down to 50 nanoseconds, about the level of static RAMs. At the same time, of course, the static RAMs are themselves getting faster, and will soon be challenging the older, bi-polar technology, which has kept in the race because of superior speed.

If RAMs get close in speed, then the considerable outstands then the considerable extra cost of bi-polar chips will seem less and less worth paying. S till. bi-polars are fighting back— they are also speeding up and, more importantly, are using less

Yet it is the advent and growth of the bubble which has caused most excitement in the memory scene in the past year or two, especially since the new devices offer higher packing densities than RAMs or even CCDs, and show themselevs to be rapid and reliable, too. Magnetic bubbles have been

Magnetic bubbles have been under development for the past two to three years, and first began to come into systems late last year. They came in with high tensities—256K chips were produced by the U.S. companies of Texas Instruments and Rockwell, while the U.S. companies of Intel and National Pansonic and Japan's Fujitsu and Nippon and Japan's Fujitsu and Nippon Electric are also bringing out 256K models.

Mackintosh Consultants, the international electronics consultancy, was an early enthusiast for bubbles in its report, "Serial Memories in Europe and the U.S.." published in June, 1977, sees magnetic bubbles as offering the advantages of low cost, small size and an absence of moving parts, as well as the high densities. The company believes that bubbles will find increasing application in com-puter terminals, and will come to he more and more used in small business computers. While 256K devices so into machinery, the Im bit bubble is expected to be tested next year, or even this-Rockwell has promised a Im bit bubble chip by late 1979.

John Lloyd

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# Increasing demands for security

stems from masquerading. After work as a postal type delivery inadvertently revealing bank system, so that sending and account balances to credit checking agencies, the banks times. are now more careful.

The general method of reducing masquerading to minor proportions starts with the taning back routine. In this step, interest nave ing back routine. In this step, interest nave ing back request, but is only revealed when the proper registered telephone number of the alleged caller is rung back world or with defence establishments.

In this step, interest nave inter being requested. This measure does not prevent all masquerading, but it helps to reduce the of common difficulty that the the necessity for computers to interrogated bу remote terminals

If a computer system using remote terminals holds valuable data, then it is now standard practice for terminals to be "called back" in this way to prevent fake terminals masquerading as real terminals.

Having decided that the central computer is firmly con-nected to a real terminal, it is probably safe to allow searching and retrieval from the files. Well, nearly safe, but first the transmission link must be protected by the encoding of the transmitted dialogue.

This encrypting can be useful to protect against any eavesdropping on the circuit, but it cannot be used as the sole method of protection. For encryption by Itself tends to reinforce the credibility of an inquirer who uses it and so makes a security penetration much more dangerous, unless it is supported by other rules and procedures.

A plain language telegram from a business agent can be regarded with scepticism, but if it is encoded correctly, then the firm to which it is sent may give the message uncritical acceptance and this encrypting trap must be avoided by computers in use through networks as a source of information.

Expressed in the language of business, this problem is referred to as the authentication aspect of computer executed

network, and the second when The most common problem the parties are using the noreceiving occur at different

> The literature of specialist studies in this topic is growing, almost by the hour, and some side-effects of this encrypting

Suddenly, in recent years, the safe transmission and reception not readily exist when electronic of messages from automatic signals are used to complete world of business understands banking terminals, building society pass book terminals and adopt similar practices when other samples of electronic methods of filing and accounting has become a serious issue.

Now these major commercial organisations, and the suppliers of computing networks in either equipment or design fields, have a brand new set of career openings for what was formerly an esoteric aubject-cryptography.
Traditionally, an elaborate

encrypting method was devised and connected to individual use through the selection of a securi key. Given that the key remained a secret, any use of the key gave an assurance of confidentiality and genuineness for messages passed this way. It is still believed that there is much to be said for this approach, yet, in addition, there has been devised a new set of schemes for coding which use two keys-one of which is public and one secret.

Basically, the public key is used in transmission and the secret key in reception—the theory is that knowledge of the However, many problems still

nced examination in using either system. For instance, in the two-key system, when the secret key has been undermined in some way, an organisation will need to change both keys. This involves disowning the old public key at some instance of time. This act of change could lead to invalid transactions being attempted, which would normally have to be repeated with the correct key. However,

when the key was "disowned."

issue. Typically, it is such social issues which determine the shape of computer networking business practices.

centuries of business practice. The same understanding does not readily exist when electronic business transactions.

Some of the problems are technical, but most of the crucial issues will derive from behaviour patterns which can hardly emerge unless systems are built — an option which seems much like a gamble—or after much study and the use of imaginative simulations and tests which indicate clearly what patterns of behaviour are likely in full scale usage,

The early use of signature strips on credit cards, for instance, exploited plain paper which was easily replaced by a fake version in the hands of professional fraudsters

The security of computer stored data has been high-lighted by the privacy debate. The connection between the two issues demands new standards of business behaviour, both within the computing organisation and also, between the world of business and the public-as a consumer of services and a supplier of data.

It is reluctantly accepted by enthusiasts for interconnected computer networks that a flow public key gives no clues away of false or corrupt data could to the make-up of the secret key, seriously undermine the usefulness of such networks. It is readily recognised that if this ' bent ' data referred to an individual then it could damage them in a serious way.

There is no clear view of what the position is when a husiness organisation (or some other legal entity) is the subject of data flows based on bad data. However, every user of computer stored data is likely to be painfully aware of the need for this data to be Two sides of this job can be it gives the opportunity for both accurate, and also hitched fights back with a new machine

of any kind, gives a competi-The proper registering of tive advantage to an organisa- ness, intent and usage, public and valid keys therefore tion, the need to keep close Coupled with this for becomes a social organisation scrutiny on such material has list is the need to gain public also long been apparent. For confidence through proper example, some of the seismic privacy measures, the exposure data held by oil exploration of computer criminals, and the inter-connections in future teams is thought to be of immense commercial value.

Thus, the sum of the em-

the social assues of meaningful-

Coupled with this formidable humanity of computer systems which are also of commercial benefit to the business world.

Oddly enough, the apparently together, the so-called electronic grouped as follows: the quality measurement tools by comput-manager and most industrial frequently been forced to infunds transfer operation, for control issues of integrity, ing managers is of enormous plant managers rests on the vestigate "oddities" in the

polluted data processing.

these firms, such as Tesdata, an adequate or comparable set arose purely from the need to of instruments when data is tune up the cost effectiveness of the "plantroom" housing the computer, the continuing boom in this business reflects many auditing side-effects.

The special relating to stored data can be inbred use of performance between a data processing plant measurement phase they have weaknesses also come to light.

THE HUMBLE telephone has clearly seen—the first existing ducking the acceptance of unto a control over the period of currency and validity the value in helping to resolve the quality control problem. A poor
throughput which have led to
created a series of troubles for when the parties are in live welcome transactions through its validity.

business in relation to conbusiness the final result is

Sometimes the final result is instrumented flaws in the pro-Although the foundation of cess steps. The audit trail is not

> processed. have set out to measure the per- Excessive interrogation of formance of their machines, stored data by remote terminals simply to increase the through- is readily spotted in this way, difference put. However, during this for instance, but more subtle

just an improved design for program sequences, but on some occasions it has led to the exposure of dublous practices within the firm as a whole, or Numerous computer centres the computing centre itself.

Hedley Voysev

# The 'plug compatibles' market

turers, which can operate problems.
according to the instructions contained in IBM software. In Amdahl machine first and be essence, plug compatibles are copies: they are making a good living for the manufacturers by being good copies, which can, they claim, deliver what IBM machines can—as efficiently, as rapidly, as accurately—and often cheaper.

Mr. Gene Amdahl, at one time a director of design at TBM, started it all when he formed the company which bears his name and which reckons to manufacture one fifth of all mainframe (that is, larga) computers now being much higher shipped—a proportion than anyone, apart from IBM. That success has come in just over three years.
Amdahl's idea was possible,

as much else is, because of the

rapid advances being made in semi-conductor technology. Because both micro-processors and semi-conductor memories were being made which had higher and higher densities at lower and lower costs-that is. they could perform mire and more functions more rapidly of moving in on the market, too. and cheaply—a new company could challenge IBM by making plug compatible business came a computer which operated at the large mainframe end: according to the same software. did the same things, but did it larger models of IBM's 370 much more cheaply. That is ex- series. Now, it seems that the actly what Mr. Amdahi did. So Amdahl units-and now others-can be purchased by a user with IBM machines to extend his system. It can be run 370 series, where most of IBM's

assured that he has com-patibility with the biggest system in the world. It seems that the plug compatibles have found the ideal market, one created by someone else which continues to dominate it, and whose growth in no way hurts their own-or has not yet.

### **Imitators**

Mr. Amdahl himself has spawned a number of imitators —one of the more successful being his own son, Carlton, who is vice-president of the Magnusson Corporation, based on a plug-compatible concept which Mr. Magnusson Jnr thought up for a doctoral project at the University of California at Berkeley.

Others include the established

semi - conductor manufacturer, National Semiconductor, Cambridge Memories and another that it wanted to lower the brand new company, Two Pi. Yet another, Electronic Memories and Magnetics, is thinking ance which the "E" series of moving in on the market, too.

The dress compatition in the description and therefore not The first competition in the Amdahl went up against the newer plug compatible companies want to compete at the smaller end of the market, with the less powerful models in the

on IBM software and if IBM customers are IBM responded initially to

immediately responded with price cuts of its own. Amdahl pected that the imitators prices would tend to drift down in the

course of time. However, catching its competition on the hop was not, in the view of a number of IBM watchers, the only reason for the price slashes. IBM was the 370-it was unveiled earlier this month-and it was thought too dramatic, and therefore not annoy too much the recent pur-chasers of 370 machines.

The "E" series, widely billed as the "answer" to the plug compatible manufacturers, was partially unveiled at the begin-ning of February with the introduction of two machines in a new range called the 4300. The two machines are the 4331

similar to the 370 range but formance of the two new considerably cheaper. Amdahl machines are between five and seemed undismayed by the eight times greater than their

Last December, IBM slashed prices again, cutting incremental memory prices by 30 per cent on purchase and 20 per cent on rental. Only Itel, a leasing corporation for plug compatibles immediately -like its sister giant, AT and T said it wouldn't cut, while others —clearly is set to woo its simply said nothing. It was exclients rather more ardeatly than it has in the past.

However, even more significant for the plug compatible market was thought to be a technical trend begun by the new machines. In their case, for the first time, some operating instructions are wired in to the hardware: that is, they are almost due to announce its long- the hardware: that is, they are awaited "E" series to replace no longer on written-down software which can be bought and copied. IBM is reportedly letting it be known that they will apply this technique to its mainframe machines which effectively means that the "E" series, and further developments from it, will not be able to be imitated—at least, not by present means. If the company's prospective customers believe this, it may deal the

pluc compatibles a blow. These competitors claim (a). that IBM canot bring in this or any other innovation too fast, because that would annoy the existing users; (b) any price and the 4341. The range starts cuts it makes will be more than with the 4331 model II, with a matched by the plug com-

IBM "PLUG COMPATIBLES" which attracts the user back to this competition in classic purchase price of \$65,000 and patibles and crucially (c) wring are computers, made by a his original supplier, he can go rather of (non-IBM) manufacturers, which can operate turers, which can operate according to the instructions.

Which attracts the user back to this competition in classic purchase price of \$65,000 and patibles and crucially (c) wring fashion—by cutting its prices. a monthly rental of \$1,862: the in the software into big maintained back with no compatibility in 1977, it brought out its II has a half-megabyte memory. It is reckoned that the price personnel of the instructions of the instructions of the instructions of the compatible of the software into big maintained back with no compatibility in the software into big maintained back with That has yet to be tested.

Yet the competitors don't seem too worried, and part of the reason is that it has become clear over the past year that the demand for extra computing power is almost insafiable, much larger than IBM itself. had estimated. Other competing, non-compatible companies such as ICL of Britain, is estimating a doubling of its sales. in the next four to five years-(in ICL's case, from about £500m to £1bn).

### Argument

It is in this demand on which the competitors can thrive almost irrespective of what IBM does in the short term. Besides. sleeves if IBM does hit back too hard: anti-trust suits, to which a giant like IBM is especially vulnerable. It seems that IBM and its swarm of imitators will have to get used to living with each other for a while yet.

Indeed, there is an argument. recently developed, that it is got d for IBM to have these pluz compatible manufacturers about, especially at a time of a hangry world market. The argument goes that the plug compatibles, where they get new sales, are actually creating. future markets for IBM, assuming the company creates the equipment the market place

John Lloyd

# Computer systems and services

Hoskyns is one of the world's foremost suppliers of standard computer systems for business and commercial applications. These systems offer you reliability, rapid implementation, flexibility for future developments and, above all, the most cost effective and secure method of using computer systems. Over the last decade, we have developed standard systems which cover virtually every business application and run on every type of computer - from large mainframes, to minis, to small commercial microcomputers.

If you would like more information about any of our products or services, please return the relevant pentagon(s), with your name and address, to James Feeney, Managing Director, Hoskyns Group Limited, 91 Farringdon Road, London EC1M 3LB. Tel. 01-242 1951.

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Modular Application Systems (MAS) are the most comprehensive and advanced manufacturing systems in the world. They run on almost any computer which supports COBOL, and over 1000 systems have been implemented worldwide.

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- Forecasting Bill of Materials
- Accounting Shop Floor Engineering Change Capacity Planning Control

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KIBS is a highly flexible, integrated system which handles all of the major retail and wholesale activities of banks.

The system operates on a multi or singlebranch basis and is available on a range of computers, with or without on-line VDU facilities. It is easy to implement and use and is installed in a wide variety of banks throughout Europe, America and the Far

Applications include: FX & Money Market Commercial Lending Bills & Documentary

Current & Savings Accounts Customer Loans/Deposits General Ledger

**Business Systems** 

MAS-M

MAS-M is the latest addition to the Hoskyns range of fully proven commercial application systems, which have been developed for the latest generation of minicomputers. They exploit all the benefits of minis; instant response, ease of use, and inexpensiveness. MAS-M could enable you to improve dramatically the profitability of many areas of your business. The systems are specially designed to take full advantage of new technology in the DEC PDP 11 family of computers

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Ledgers

Inventory Control Bill of Materials Sales & Purchase

General Ledger Material Requirement Hotels MICRO I

Hoskyns Hotel Systems have been specifically built to provide the Hotel industry with the most effective and reliable solution to their systems problems. The latest micro technology is used, with prices starting at less than £10,000 for a full hardware and software system. Users: include the UK's largest hotel groups and leading independents.

Facilities include: \* Reservations

- Guest Accounting Room Status Reporting.
- Management information
- Automatic Room Charging Point of Sale Data Capture

**Fully Descriptive Guest Bills** 

Guest Lists

Retailing MICRO II

The Hoskyns Retailing Systems provide computerised stock and sales reporting for the small to medium sized multiple branch retailer. The systems are extremely easy to install and control. Input is by point of sale terminal, Kimball Tags, or sales sheet. Computer processing is carried out on a nearby Hoskyns computer: the retailer. requires no specialist staff.

The systems provide: Up-to-date trading

comparisons Optimum stock Full financial control distribution . Supplier performance Reduced stock losses

Hoskyns Group Limited is a wholly owned subsidiary of Martin Marietta, an international corporation with a turnover of \$1,750 m and profits of \$136 m.



# An uphill task for the Yes men

WALES IN theory ought to give a resounding "yes" to the proposed Welsh Assembly in the referendum on March 1. In practice things could be dif- Harold Wilson's Labour Gov-ferent even though the Govern- ernment in 1964 was the crea-inve won them additional ment in London, the Labour Party, the Welsh Trade Union Congress, the Liberal Party and Plaid Cymru are all campaigning hard in favour of the

against, and they have not had a majority of seats in the orincipality since the extension of the franchise in 1867. Even health service, housing, agricultuday, they hold only eight of ture, the environment, the arts and industrial development, ser. In the last general election hey secured less than 20 per Welsh Office budget has gone from £48,000 to over £670m. rincipality since the extension tion (except universities), the

he statute book, Bills calling for Welsh home rule, an elected assembly and Welsh parliament further £450m of public money. were tabled in Westminster in. At present, many of them are 1891, 1892, 1895, 1914, 1922, simply not answerable to the 1955 and 1968, but got no general public.

The Liberal's embraced Welsh home rule as a policy until their landslide victory in 1906. Keir Welsh is the promise of local The Liberals embraced Welsh Hardie, founder of the Labour Party and MP for Merthyr Tydfil between 1900 and 1915. included Weish home rule in his election addresses. The district and community councils

assembly would also be no more since the assembly is given a Labour Party which, in recent than a logical development in mandate in the Wales Act to history, has had a bold on half

by the Conservatives in -1951, itself. One of the first acts of Mr. That points towards another aspect of the Welsh devolution

tion of the Welsh Office in Cardiff and a Secretary of State for Wales with cabinet rank.

ing hard in favour of the icvolution proposals.

Only the Conservatives among the main political parties in its own multi-purpose government that the Act is on the slippery slope to separatism.

Welsh Office. Wales now has to separatism.

Compared with the devolution against, and they have not had ment department with exclusive of powers which has occurred ment department with exclusive responsibility for roads, educa-

The idea of devolution is not in addition, there are over 60 exactly new. Although the nominated bodies or Quangoes Wales Act is the first to reach (non-governmental organisathe statute book, Bills calling tions) appointed by the Welsh Secretary of State to spend a

Another factor which might. government re-organisation. The sweeping changes introduced by the Conservative Government of 1970-74, introducing county, Labour Party itself was firmly remain widely unpopular in The fact is of course that the committed until 1945. Wales. The referendum offers devolution issue cuts across The establishment of a Welsh an early opportunity for reform

Wales has developed since the ment structure, though any general elections.

post of Minister of State for legislative changes would be This pre-eminence is reflected welsh Affairs was first created carried out by Westminster in the two organisations cam-

have won them additional support. The Assembly is to have executive powers only. All or Wales with cabinet rank. legislative power over Welsh Since then, whole areas of affairs will remain in the hands

tion. The umbrella Wales for the Assembly Campaign contains the Liberals (Plaid Cymru, the Comunistms, the odd Con-servative and an array of nonpolitical figures like Sir Gariant Evans, the baritone, Mr. Barry John, a rugby player, and Max Boyce hie entertainer, but it is headed mainly by Labour spokesman. In addition, there is an official Labour Party-Wales. Compared with the devolution TUC - Co-operative campaign of powers which has occurred dedicated to winning the back-

### By ROBIN REEVES, Weish Correspondent

in some other states in western ing of traditional supporters for would represent a very modest government and local demomajority, let alone the support, made available to devolution of 40 per cent of the electorate opponents in Scotland. go through automatically. A attach to the Labour No cam-BBC Wales opinion poll pub-

were "don't knows." party lines above all in the

vote against, and 21 per cent

Europe, the Welsh Assembly the Labour Government's policy, The weakness of the Conservadegree of decentralisation of tives in Wales is reflected in the absence of a separate Tory cratic decision-making. For all campaign. Instead the party this, the signs are that the organisation is working within "yes" campaigners will be lucky an umbrella No Assembly Camto acrape home with a bare paign without the resources

found that only 38 per cent of other South Wales Labour MPs the 69 per cent who intended to vote were planning to say "yes." devolution battle will be won Over 45 per cent intended to or lost in the industrial south. ote against, and 21 per cent Half of the Welsh population of the "don't knows."

The fact is of course that the Cardiff. The vociferous opposition of the Gang of Six, as they have been dubbed, went largely unanswered during the un-certain passage of the Welsh

Assembly legislation through be matters like housing and that England subsidises V les debates, tensions and differing traditional Labour voter in the

The official Labour Party-

trade union campaign may also have miscalculated by making, as its main platform, the need to democratise the devolved, bureaucratic tier of government already running Wales. Not only is an extension of local democracy low on the list of Welsh voters' priorities, but the opponents of devolution have in their favour the unhappy experience of the Conservatives' reorganisation of government and the unfulfilled benefits of Common Market membership held out in the EEC referendum. The evidence of the polls suggests that the main reason people are set to vote against the Assembly is that they feel it will involve extra costs and merely create yet another tier of government.

As the campaign has developed economic arguments have inevitably come to the fore. The pro-devolutionist case is that the Assembly will cost no more than ip per person per week and that it can bring more jobs and a higher standard of living to the people of Wales. This is claimed to be so because the areas of responsibility to be devolved to the Assembly would

Parliament. It has clearly given health, where Wales has actuand that the setting up of the them a head start in the battle ally been receiving less than Assembly could eventually call for the heart and mind of the the share of public expenditure this largesse into question. the share of public expenditure which its population—5.1 per ct of the UK—entitles it. Indeed, on the basis of need,

> stock of any region and greater health and infrastructure needs than most. Overall public expenditure in Wales is higher than England or Scotland but, the "yes" campaigners stress, the above average share is in areas like unemployment and social

security benefits which will remain the responsibility of Whitehall and Westminster and which will be unaffected by the setting up of the Assembly. In its own areas, the "yes" argument runs, the Assembly will increase Welsh bargaining power in the fight for a just share of resources from London and Brussels. Extra jobs and a higher standard of living would

flow both from this and political muscle added to the public enterprise activities of the Welsh Development Agency and the Development Board for Rural Wales.

There are also less prominent.

but perhaps decisive, reasons why the Welsh seem to be reluctant to embrace the Executive Assembly. Wales has Wales ought to get more. It has by far the worst housing always been a nation divided by geography and, more recently, by economics and cul-

Today, Wales is a society which a Welsh minister once described as "too far from God, and too near to England." The decline of the traditional coal and steel industries and the influx of English and multinational industry, the decline of organised religion, rural depopulation, immigration (one in five persons living in Wales was born elsewhere), the powerful influence of predominantly Anglo-American mass media, and better transport communications—all have served to undermine further a Welsh identity kept intact over the past 400 years by little more than a language, culture and tradition.

Equally, these trends have Yet, without oil in the Celtic provoked a vigorous backlash. Sea, the economic argument is The growth of Plaid Cymru is obviously more difficult to get its most visible form in political across than in Scotland, particularly when set against the basic degree, it pervades every corner message of the opponents of of Welsh society. The net devolution. This argument is result is a community full of

interpretations of what constihow they should develop. The debate centres on the

position of the language, now spoken by only 20 per cent of the population. Barely 15 years ago, the language showed every sign of disappearing quietly. Today, it may still be losing ground in the rural heartland, but it is also enjoying an astonishing revival. Welsh language and bilingual schools are springing up all over Wales in response to grass roots pressure, particularly in the anglicised South but this revival gives rise to conflict and fears among an English-speaking majority which the opponents of devolution have not been above exploiting.

Few people in Wales would want it simply to become part of England. But it is because there are so many conflicting Welsh identity and how it is best to be safeguarded economically and socially that pro-devolu-tionists argue that Wales needs its own political forum. It would arbitrate and give constitutional expression to the conflict in Welsh society.

Whatever happens on March 1, which is the day of the patron saint of Wales, St. David, the issue of devolution in Welsh politics is not going to go away.

### Letters to the Editor

# Patterns of

From the Senior Representative UK, Houg Kong Trade Developnient Council

Sir. — Mr. Lloyd-Jones (February 12) agrees with the Lloyd-Jones World Development Movement that protectionism is not the answer to the textile industry's troubles and then proceeds to put the case for an orderly development of world trade in textiles. I think an orderly development of all world trade Microprocessors that have been created by self From Mr. S. Gibbs. interest and political action.

and Development, through the minefield of GATT negotiations, has ranged between extremes of has attempted over the years view, one assertion being that to improve conditions in the such technology, inherently Third World by agreed formula agreements, which tend to assist the established producers massive redundancy in both white and blue collar sectors. rather than under-developed or developing producers. This is obviously an unresolved permu-

I have been involved in general trading activity over the petitors' countries.
past 35 years. I have found that In the present climate and dominant suppliers have existed against the present background during the whole of this period, sometimes with changed control has been necessary to provide the correct mix in the ideal range to meet consumer choice. At no time during this perizd has anybody succeeded in changing the pattern of trade on an orderly basis, although many have attempted to do so. I have always found textile trading is a disorderly business. Technological advances and

time and motion study techniques in developed countries ereate reduction in labour requirements and at the same time require new expanding market outlets to absorb the resultant productivity increase. Equally the improvement of socially acceptable living con-ditions in Third World and developing countries requires export markets at realistic

Statistics comparing 1950 to 1978 employment and imports are, therefore, useless, as it is a different ball game. If the EEC import regime negotiated within the framework of the Multi-Fibre Agreement is being used quite positively to ereate a stable trading environment for the Community's textile and clothing industry, it should place equal emphasis on exports if stability is ever to be achieved. Total trade expansion is a necessary element of trade development.

There is no evidence that the EEC has "parcelled out seg-ments or textile production that should be the province of the EEC" to less developed coun-tries. Basic tenets of production requirements are similar in both developed and less developed countries, and both require "the right product min of basic goods (which by their nature lend themselves to mass production), and those where high quality and superior standards of design are para-mount." The cut-back in quotas of long-established major has resulted in motivation of Hong Kong manu-facturers to produce even more competitive higher quality and be an isolated minority party

Britain and incidentally exports a Liberal vote being a wasted to Hong Kong increased 33 per vote, if it ever had any validity, cent. It is also of interest that must turn against them in British exports to the develop- Europe and imply that a Coning countries in 1978 increased servative vote is a wasted vote. 22.5 per cent from £3.7bn As so many Labour contenders 22.5 per cent from £8.7bn As so many Labour contenders to £4.5bn, and imports were seem hell-bent on wrecking the per cent ahead at £3.4bn

Hong Kong Trade Development

14-16, Cockspur Street, SW1

Sir. - Discussion The UN Conference on Trade possible effects of microprocessors on manufacturing industry tronics technology is not developed as quickly as in com-

of increasing unemployment, both fears are understandable due to amalgamation etc., in but unnecessary, I suggest. Our developed countries of Western present national work force present national work force Europe, the U.S. and the Far (and thus unemployment) is East, and a co-ordinated purchasing and marketing policy families where both parents are employed. In some cases this is by choice but in most it is the result of financial necessity. Surely we should grasp at the new technology as a means of improving productivity, reduc-ing unit cost and thereby improving profitability. In this way, individual rewards can be increased to a level that eliminates the need for "two parent" working with a consequent restoration of the home with a parental presence and thus an improvement in the quality of family life.

In this way, microprocessing can improve the life of our society as a whole and not become the "bogey" of the 20th S. Gibbs.

"Nicholas Green."
Pumphouse Lane, Hanbury,
Near Droitwich, Worcestershire.

### Liberals in Europe

From the Liberal Prospective Partiamentary Candidate for Mid-Sussex

Sir, It is disappointing to find Elinor Goodman (February 14) so hidebound by the results at Westminster in her assessment of the possible outcome of the elections in the UK to the EEC Parliament. It is equally disappointing that an article featured as "Where Britain's Parties Stand " contains not one reference to the leading European party in this country—the Liberals.

With the strength of Liberals throughout Europe, the union which they have formed and the joint manifesto which they have adopted, Liberals, together with Social Democrats and Christian Democrats, form the largest Parties in Europe.

Conservatives, despite a desperate search for allies, have been rejected by other parties

EEC if elected, to any real (£3.3bn), giving Britain a visible European the only vote which trade surplus of £1.1bn with can make any sense is a the Third World.

Liberal one.

Rather than follow the Westminster example, I suggest that both turnout and the voting pattern in the EEC elections will more closely resemble that experienced in local government elections. The 1977 local elecessential. Trade and services redistribution is the solution and employment favourable to Liberals than the national trend.

I believe that as public awareness builds up on the relative standing of the Parties in Europe and the old cry so familiar to Liberals, that "I would vote for you if I thought you had a chance" is proved to be irrelevant in the elections to the European Parliament. we will see the Liberal Party become a major force in the election on June 7. Jack Campbell. "Rosemary.

Rosemary Ave., Steyning, West Sussex.

### The national heritage

Sir,-Dr. Dalton, the Labour Chancellor who created the National Land Fund in 1946, then described the almost complete failure to make use of the "in lieu of tax" provision since it had been enacted in 1910 as "playing the fool with a great idea." How much more justified is this stricture today, when it is seriously proposed— in the White Paper on "A National Heritage Fund"—to abrogate this constructive con-work must be suspended, cept at the very moment when Many oils will not respond to it is most desperately needed!

instead of following the principle, in approved cases, of acceptance of payment of capital (as the French find no difficulty skimmer can cope with in doing), the Treasury now Nor—us this incident proved—are booms to be relied on for are booms to be relied on for the contract of th insists on its pound of flesh of are booms to be relied on for hard cash, which it would obtain containment. It is perhaps whenever an assortment of significant that in many major bodies haggling about priorities and percentages are able (and response to pollution incidents agree) to disgorge it for the use is controlled by public relations

The proposed new National Heritage Fund will very evidently be rendered ineffective if it is charged, over and above all its other responsibili-ties, with the colossal burden of financing the acquisition of works of art which could in fact birds. This figure includes 112 simply be taken into public great northern divers, one of possession—according to the Europe's rarest breeding phrase in the present statutory species. Scafowl were literally provisions-" in satisfaction of tax." All that would be neces- kilometres of sea. At least 20 sary would be the adoption of some routine accounting device in Treasury ledgers, similar to that employed under the French

By way of illustrating in the most general terms the scale of and elsewhere. It is essential for overhurdening which could be Government to commit itself to imposed on the projected new a major new programme of Heritage Fund, I would point research and development on out that on January 1 of this clean-up techniques. The Deyear loans from private sources to national institutions in the

competitive nighter quanty and some an isolated amounty party the white raper, would intro- lan resitt superior designed products. This resulted in a 17 per cent and with no say in decision ability in working out testa- the Lodge. Sandy, Beds.

only prove most damaging in the long run for our cultural inheritance.

Finally, may I place on record the fact that on January 31 Mr. Norman St John-Stevas, speaking on behalf of the Conserva-tive Party at a Press conference in support of Mr. Arthur Jones Bill, categorically confirmed a far-sighted commitment to the retention of the "in lieu" pro-

33 Cadogan Square. SW1.

From the Director,

### Dead birds at Sullom Voe

The Royal Society for the Protection of Birds Sir.—There is ample just's-cation for criticism of the handling of the oil spill at Sullom Voe—Europe's largest and most modern oil port (Lesley Able, February 9). Because of the quite excep-

tional international importance of Shetland's waters as a scabird breeding and wintering area, my society was deeply concerned that the highest standards of oil polintion prevention, treatment and monitoring should be provided there. We received complacent assurances from the industry and its "environmental ad-visers" who appeared unwilling to acknowledge the realities of the problems they would face. Only the professional staff of Shetland Island Council's Ports and Harbours Department seemed fully aware of the true situation.

The limitations of oil spill clean-up are enormous. Depend-ing on oil type and sea conditions, the best treatment rates that can be achieved will clear up to 15 tons per hour for each vessel involved. During darkness-which lasts for about 18 hours in a Shetland January treatment anyway: fuel oils and some crudes cannot be dispersed and are so viscous, especially in cold northern seas, oil companies, the planned men. Certainly it is the case that often little can be done but to try to talkk one's way out

. Unfortunately, there is no satisfaction in saying "we lold you so." Esso Bernicia's fuel oil has killed at least 3.040 great northern divers, one of wiped out over many square otters and hundreds of sheepwhich eat seaweed on the shores-have also been affected. Unquestionably, whatever safeguards are applied, there

always be oil spills here

partment of Industry's oil pollution unit must be ex-United Kingdom were indemnified for £72.75m.

It should be added that replacement of acceptance in lieu by sale to a museum by the White Paper, would introduce an element of unpredict.

The pointerin data must be expended and restructured. The oil and shipping industries should be obliged to contribute substantially to this process, which clearly capacity continue to be left largely in their hands. In Prest.

STENERAL UK: Four Times employees claim unfair dismissal at Industrial Tribunal, Ebury Bridge Road, London, Mr. Zivan Berisavljevic. Yugoslav Ambassador, opens a trade promotion event at Birmingham Chamber

Energy Show opens at National Exhibition Centre, Birmingham (until February

Photography at Work Exhibition opens at Wembley Conference Centre (until February 22). Kendal and Dent. London silver bank, High Court hearing resumes on removal of Official Receiver as company's pro-

### **Today's Events**

Sir Kenneth Cork, Lord Mayor Council meet in Brussels. of London, receives Mayor of Freetown, Sierra Leone, Dr. June M. B. Holst-Roness, and Town Clerk of Freetown, Mr. H. N. visit to Tokyo to discuss Pergusson, at Mansion House.
Prof. D. Jenkins, Leeds University, speaks on the nature of work in a changing society, Derby Cathedral Launch of Ross McWhirter

Herr Wilhelm Haferkamp, External opens in New Delhi OFFICIAL STATISTICS

Department of Industry Foundation/Caxton Publications publishes the turnover of the motor trades (fourth-quarter). Speakers include Mr. Augus domestic product based on Ogilvy and Sir Douglas Bader.

Overseas: EEC Figure PARLIAMENTARY BUSINESS Ministers and EEC Fisheries

Department of Ross Accumings Department of Industry Department of Indust

Procedure Committee, session 1977-78, with 1st to 5th Reports 1976-77.

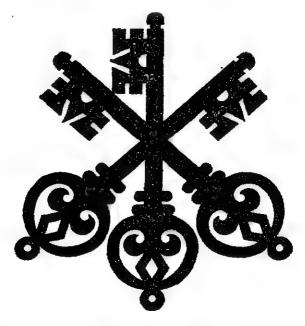
House of Lords: Greater Manchester Bill, Isle of Wight Bill, South Yorkshire Bill, Tyne and Wear Bill, Kiribati Independence Bill, Nurses, Midwives and Health Visitors Bill, Second Readings.
Select Committee: Statutory
Instruments, Room 5, 4.15 pm.
COMPANY RESULTS

Final dividends: Drake and Souli Holdings. English and Scottish Investors. Interim dividends: Consolidated Plantations. Footwear Industrial Investments. Sime Deaby Holdings.

See Pinencial Diary on page 7.

# Financing:

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Total assets tend 1977); Sir. 55.710 million. Custemers' deposits; Sir. 30.371 million. Capital and resentes; Sir. 3.235 million. Advances to customers. Sir. 20,135 million. Net profit: Sir. 237 million. Number of stall: 11,500. General Management in CH-4002 Easte, Aeochemorstadt 1, and in CH-8022 Zurich, Paradeolata 6 Over 179 effices throughout Switzerland. Branches in Allanta, Bahrain, Chicago, London, New York, San Francisco, Singapore and Tokyo. Subsidieries, ahiliated companies and representatives in over 20 other countries throughout the world.

### PENDING DIVIDENDS

# Berisford starts well and expects good result

well for S. and W. Berisford and are confident that developments Financial Times:the group is financially stronger in band for increasing capacity than ever before Mr. E. S. and improving facilities at Margulies, the chairman says in selected sites will prove his annual report.

Selected sites will prove beneficial, "and an important his annual report.

Further satisfactory results for 1978-79 are hoped for he adds. As reported on January 19, pre-tax profits for the year ended September 30, 1978 rose by 33 per cent from £23.57m to £31.36m on a turnover of £1.34bn against £1.26bn. The dividend is stepped up to 4.60625p compared with an equivalent 4.125p per share.
The directors

The directors are also proposing a scrip issue, on a one-for-10 basis, to raise the authorised capital from £24.15m to £30.15m.

Market share of the sugar division was maintained during the year, Mr. Margulies states. despite heavy competition. At present, however, the off-take of sugar in the UK, he says, does not seem to be increasing, and he feels the division will do well to produce similar figures in the

current year.

Results were disappointing from the food and drink division, he says, though the manufacturing companies showed record turnover and profits. H. E. Daniel, of Tunbridge Wells, was acquired in the year.

Despite difficult market conditions the commodities division continued to make good progress, and an increased volume of exports cancelled the loss incurred in the home trade satisfactory result at the year

After a steady first half, the by-products side of the husiness went through a transitional period in the second six months, when the activities were developed and restructured to establish the group's long-term

group has seen an upturn since the

Pre-tax profits of the control

THE current year has started the meat sector, but the directors mation Service appearing in the factor in achieving long-term

> The current year has started satisfactorily in the secondary metals division and Mr. Margulies says the group is in an excellent position to derive maximum benefits from trading. As at September 30, 1978 fixed

viability."

assets stood at £27.5m (£22.3m) and net current assets at £63.98m (£45.24m). Shareholders funds reached £102.1m against a previous 176.37m.

Meeting. Tower Hotel, E, March 14 at noon.

### Arcolectric at record £568,786

PRE-TAX profits of Arcolectric (Holdings) finished the October 21. 1978 year at a record £568,786 against a previous £323,669, following a rise at half-way from £117,302 to £286,901.

Tax for the year took £281,210, compared with £165,707, and after an extraordinary debit last out higher at £287,576 (£114,809). The net dividend per 5p share of the wool division, to give a for the electric switches and neon signal lamp company is increased to 0.4169p (0.40625p) with a final of 0.2626p.

### FT Share Service

Cableform falls to £171,000

They add that turnover

exchange losses at halfway, scheduled for delivery in the last share is lifted from 0.22p net to Turnover was ahead from £1.63m quarter will achieve a further 1.65p. The chairman at the year

AS FORECAST taxable profits halftime surplus to be lower but throughout 1979

of Cableform Group in the first he forecast that full year profits

six months to September 30, 1978 would be about the same as those are below those of the two for the previous 13 months. preceding half years. But the In their interim statement

gear manufacturers dropped pre-tax profits expanded rapidly from £870,000 to £171,000 after in the third-quarter and orders

107,000). And production schedules When reporting last year's advised by customers for the

annual profits of a record current calendar year indicate split £732,000, against £344,000, the that the group will be able to Last chairman said he expected the continue turnover expansion 3.3p.

£1.73m. Tax takes £53,000 significant increase.

Adobe Oil and Gas Corpora-

tion (Section: Overseas-New IAS Cargo Airlines Ord. and

Industrials). Milletts Leisure Shops (Section: Drapery and Stores). Pennwalt Corporation (Section:

Cum.Conv.Red.Pref. (Section:

### Sizewell jumps to £0.12m

Overseas-New York).

PRE-TAX revenue of Sizewell European Investment Trust increased sharply from £46,261 to £117,265 in the six months to January 31, 1979. Net asset value per 10p share is up from 105.2p at 31st July, 1978, to 110.3p on total net assets of £8.82m, against £8.66m.

But the board says the first-half increase in net revenue should not be taken as an indication of a similar proportionate rise in net revenue for the full year, although it is expected to show an increase over 1978. The net revenue at halftime rose from £22,281 to £55,285,

Last year the trust turned in pre-tax revenue of £288.132. Revenue after tax was £156,372.

Gross revenue at the halfway stage was up from £231,549 to £385,206. Expenses and interest took £287,941 (£185,288). Tax takes £62,000 compared with £24,000.

Profitability was severely The following securities have are shown at £13.02m (£11.75m restricted, the chairman says, in been added to the Share Infor- at July 31, 1978).

They add that a large part of

the net profit reduction at halfway lay in increased

ion of a steadily rising demand

for the company's products.
The interim dividend per 5p

pay a maximum permitted dividend for the current year

split equally over the six months. Last year's total payment was

the directors relterate the tional technical and marketing chairman's view on prospects. personnel—taken on in anticipa-

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Each dealer has access to 240 direct telephone

links with our customers, to say nothing of a further 30 external lines, Reuter Monitors,

Plus the money-book keyboard you see here,

an 'electronic quill pen' unique to us.

move with the times.

on-line computers and 'in-house' video displays.

For we are in the money business and must

The Union Discount Company of London Ltd

39 Cornhill, London EC3V 3NU. Telephone: 01-623 1020 (switchboard). Telex: 886434.

Direct Lines
Money, Commercial & Treasury Bills 01-623 6672/7 (Reuters Code UDBP)
Stock 01-626 2201/2

Commercial Business Development 01-626 5555/6
Sterling Certificates of Deposit 01-628 1918/20 (Reuters Code UDBP)
Dollar Certificates of Deposit 01-626 8394/6 (Reuters Code UDDD)

Computer Department 01-626 6444

an even more efficient service.

### extends offer to March 2 Sime Darby, the Far East of City speculation that the com-duced its holding from 10.9 per based international conglomerate pany would raise its offer. Sime cent to 9.7 per cent—1,042,000 which has made a £122m bid for is due to announce its interim theres.

the Guthrie Corporation, re-vealed over the weekend that it has received acceptances in respect of a mere 6.25 per cent of Guthrie ordinary shares. With the 382,500 shares already owned or purchased by Sime Darby during the offer period, the total rises to 7.58 per cent.

At the same time, however, the company has announced that it is extending its offer of 425p per share until March 2. In view of this Sime's chair-man Tun Tan Siew Sin will ask shareholders to adjourn today's specially convened EGM until March 5.

A statement from Sime also points out that the 1.8m acceptances include 1.34m shares owned prior to the offer period by Consolidated Plantations, a subsidiary of Sime.

Acceptances have also been received in respect of 0.54m 3.925 per cent cumulative preference shares, or 50.62 per cent of the preference capital of Guthrie. Sime's latest move was un-

expected and comes in the wake

Trust Houses Forte-Kuwait results today.

### McCLEERY L'AMIE CANADIAN SALE

Contracts have been exchanged by the McCleery L'Amie Group for the disposal of the Canadian subsidiary, Amjay Ropes and Twines, for a nominal considera-tion of \$1, which approximated to the net asset value at September 30, 1978. Terminal losses at Amjays are

estimated to be approximately £130,000. The Board considers the

disposal to be beneficial as Amjay's continuing trading losses constituted an unacceptable drain on group resources.

### ROWNTREE MACKINTOSH

Rowntree Mackintosh and John Mackintosh and Sons announce that the scheme for the acquisition by RM of the preference stock of Mackintosh not already owned has been approved by the High Court and has become effective.

### SHARE STAKES

British Printing Corporationance has increased its holding of SIMCO MONEY FUNDS 4.2 per cent "A" preference shares to 14,000 (9.33 per cent) and its holding of 4.2 per cent "B" preference to 85,500 (11.25 per cent). Bridgewater Investment Trust

Sagest, SA, has disposed of 350,000 ordinary shares.

Martonair International — On February 12, non beneficial interests of G. Godwin, director, of R. C. Cartwright, director, and of M. S. Gibb were reduced by 185,000 shares.
Fairview Estates—London and Manchester Assurance has re-

7 day % р.е. 13.257 12.274 13.250 12.384

13.297 12,560 13.305 13.242 FINANCE FOR INDUSTRY TERM DEPOSITS Deposits of £1,000.£50,000 accepted for fixed terms of 3-10 years. Interest paid gross, half-yearly. Rates for deposits received not later than 9.3.79.

Terms (years) 3 4 5 6 7 8 9 10 Interest % 12% 13 13 13% 13% 13% 13% 13% 13% Deposits to and further information from The Chief Cashier, Finance for Industry Limited, 91 'Waterloo Road, London SE1 SXP (01-928 7822, Ext. 177). Cheques payable to "Bank of England, a/c FFI." FFI is the holding company for ICFC and FCI.

Wed.

### LOCAL AUTHORITY BOND TABLE

Annual Interest				
Authority (telephone number in parentheses)	gross interest		Minimum sum	of bond
	%		2	Year
Adur (07917 61591)	131	}-year	1,000	4-6
Barnsley Metro. (0226 203232)	121	i-year	250	3-4
Barnsley Metro. (0226 203232)	13	i-year	250	5-7
Exeter (0392 77888)	13	i-year	500	6-7
Poole (02013 5151)	124	}-year	500	6-10
Redbridge (01-478 3020)	12§	-vear	200	4-5
Sefton (051 922 4040)	13	1-year	2,000	5-7
Wrekin (0952 505051)	13‡	yearly		5-10

### The Tokai Bank Ltd

Negotiable Floating Rate U.S. Dollar Certificates of Deposit Series A. Maturity date 20 August 1980



In accordance with the provisions of the Certificates of Deposit notice is hereby given that for the six month period from 19 February 1979 to 20 August 1979 the Certificates will carry an Interest Rate of 11½% per

> Agent Bank The Chase Manhattan Bank, N.A., London



# Dutch price equals only 57% of EPC asset value

BOARD MEETINGS

The following companies have notified dotes of Board maerings to the Stock Exchange. Such meetings are usually held for the purpose of considering dividends. Official indications are not evaleble as to whether dividends are interims or finals, and the sub-divisions shown below are based mainly on lost year's timetable.

year's timetable.

TODAY
Interims—Apex Properties, Consolidated Plantations, Footwear Industry, Investments, Impela Platinum, Jentique, Kursaal, Sime Darby,
Finals—Drake and Scull, English and Scottish Investors, Marchwiel, Scottish Esstern Investment Trust, Temple Bar Investment Trust, Temple Bar Investment Trust,

National Carbonising ......... Feb. 22 Tor Investment Trust ...... Feb. 22

Finals—
Anglo-international inv. Tst.... Feb. 22
Johnson Group Cleaners .... Mer. 13
Yecman Investment Trust .... Feb. 21

ture as is the cost of the bricks

Sime has 7.58% of Guthrie:

Investment Trust. PUTUME DATES

IN A STRONGLY worded statement to shareholders over the English Property Corporation repeated its opposition to the bid by Dutch group Wereldhave on the basis that the price of 46p represents only 57 per cent of the company's

net asset value.
In addition to the stated preconversion net asset value of 71p EPC says that it has low interest finance worth an extra 8p per share plus a further 2p per share as a result of a recent transaction. The company also maintains

that "the open market value of development properties exceeds book value by 7p per The directors further point out that the interests of Eagle Star.

the main shareholder in EPC, and the rest of the shareholders may not coincide. "A fair price "interest incurred during the for Eagle Star does not reflect course of a development is as a fair price for you," the document states. ture as is the The latest statement also con- and mortar." tains a detailed rebuttal of EPC also claims that Wereldhave's criticisms of EPC's Wereldhave in its own accounts

On its own policy of capitalising interest on development interest."

"adopts the self same principle of capitalising development interest."

Turning to Trizec, the

Canadian company where EPC owns the greater part of the equity while Canadian interests control the majority of the voting rights, EPC defends the £52m book value placed on its subsidiary. EPC also refutes the sugges-

tion that the company holds a high proportion of smaller properties and points out "that 84 per cent of UK and European investment properties have an individual value in excess of £1m; including North American this increases to 93 per cent."

### **BAMBERS BUYS** UP ENAHURST Following the acquisition of 50 per cent of Enaburst last

December, Bambers Stores has the remainder Enahurst is a private property company which owns the freehold of Centric House, Shoreditch. The majority of Centric House is to be used by

the Bambers group.

The consideration is in cash

interest in a further 50,000 shares making total interest 5,685,000

Holders of British Tar Products £360,000 101 per cent convertible unsecured loan stock

1992 have converted their holdings into 1,285,711 ordinary

As a result, Pension Funds Securities "A" account, one of the pension funds of Imperial

Chemical Industries, now holds 1,289,368 ordinary shares (8.85 per cent of the enlarged ordinary capital).

The following proposed mergers are not being referred

to the Monopolies Commission:

Sime Darby Holdings and Guthrie Corporation; Northern

Engineering Industries and Ferranti - Packard; Pilkington Brothers and Sola Holdings; Boots and the U.S. agrochemical

division of Hercules Incorporated.

Saturo Investment

60 CANNON STREET EC4N 6AL

13.274

12.554

(5.64 per cent).

BRITISH TAR

**PRODUCTS** 

NO PROBES

but the vendor has the option to apply part of the money in subscription for 100,000 Bambers

For the convenience of readers the dates when some of the more important company dividend statements may be expected in the next few weeks are given in the following table. The dates shown are those of last year's announcements, except where the forthcoming Board meetings (indicated thus\*) have been officially published. It should be emphasised that the dividends to be declared will not necessarily be at the amounts or rates per cent, shown in the column headed "Announcement last year." Preliminary proof figures usually accompany final dividend announcements.

Devipmts....Mar. 8 (nt. 2.64

Barrow Hepburn...Mar. 8 Finel 1.9331

\*Corrington
Viyella...Feb. 21 Final 1.50505

Collins (William)...Mer. 16 Final 2.553 \*Commercial State 5 State 5 Cont.

\*Commercial Union...Feb. 27 Final 5.081
\*Orake and Scull...Feb. 18 Final NII Ductile Steels Mar. 14 Int. 1.9281

Fairclough
Construction...Mar. 14
Final 1.388
Fisons .......Mer. 6
Final 7.364

Accident...Feb. 28 Final 4.347

(John I.)...Mar. 16 Final 1.2981

profit figures usually accompany final dividend amounteement fast year. Freitining profit figures usually accompany final dividend amounteement fast. Johnson and Firth Brown, Feb. 23 Int. 1.3 Kleinwort Benson
Lonadate...Mar. 14. Fridai 2.4702
Lex Service ...Mar. 9 Fridai 2.7 Icaz.
London
Shop Prop...Feb. 23 Fridai 2.4
Midland 8k. ...Mar. 10 Fridai 2.4
Midland 8k. ...Mar. 10 Fridai 1.25

Hepburn...Mer. 8 Finel 1.5331
Beth and Portland...Fob. 15 Finel 1.798
Bell (Arthur)...Mer. 15 Int. 2.25
Bibby (J.) .....Mer. 7 Finel 4.0373
British Vita ....Mer. 2 Finel 1.09
Brooke Bond Liobig...Mer. 14 Int. 0.8319
Brown Brost ....Feb. 16 Sec. int. 0.5 Transport...Mer. 9 Final 6.882

\*Torner and Newell...Mar. 5 Final 5.233
Uniterer .....Mar. 7 Final 7.24 Investmts....btar. 27 Finel 11.124

United
Biscuits...Mer. 14
United Reel
Prop. 1st...Feb. 15
Vosper ......Mar. 14
Walker (Jas.)
Goldsmith...Mar. 15
Int. 1.0
Waterford
Gines...Feb. 28
Final C.1886 Hall Engineering...Mor. 17 Finel 2.2128
\*HK and Shanghai
Banking...Fab. 27 Finel HK\$0.47
Hoover .......Fob. 23 Finel 9.21 Glass, Feb. 28 Final 0.7356. Wolseley-Hughes, Mer. 16 Inc. 3.3275

Board meetings intimated. † Rights issue since made. † Tax fret: † \$ Scrip issue since made from reserves.

### BASE LENDING RATES

AB.N. Bank 134% Allied Irish Banks Ltd. 134% American Express Bk. 131% American Express Bk. 131% C. Hoare & Co. 1219 Julian S. Hodge 1149 Hongkong & Shanghai 1319 Industrial Bk. of Scot. 1219 A P Bank Ltd. ...... 131% Henry Ansbacher ..... 13 % Associates Cap. Corp.... 14 % Keyser Ullmann Knowsiey & Co. Ltd.... 144% Lloyds Bank 131%
Lloyds Bank 131%
London Mercantile 131%
Edward Manson & Co. 141%
Midland Bank 131% Samuel Montagu ..... 131% Morgan Grenfell la Tamise S.A. ..... 14 %
Barclays Bank ...... 13 %
Bremar Holdings Ltd. 141%
Brit. Bank of Mid. East 131% National Westminster 13-78 Norwich General Trust 13-78 Rossminster 13 Royal Bk. Canada Tst. 12 Brit. Sank QI MRI. East 107 70
Brown Shipley ...... 14 %
Canada Ferm't Trust... 13 1%
Cayzer Ltd. ....... 14 %
Cedar Holdings ...... 13 1%
Charterhouse Japhet... 13 1% Schlesinger Limited ... 1349 E. S. Schwap Security Trust Co. Ltd. 131% 18 % Shenley Trust 15 9 Standard Chartered 1319 Choulartons ...... 1319 C. E. Coates ........ 181% Consolidated Credits... 131% Co-operative Bank .....\*131% Trustee Savings Bank 13-7
Twentieth Century Bk. 14-7
United Bank of Kuwait 13-7
Whiteway Laldaw Whiteaway Laidlaw ... 14 % Williams & Glyn's ... 131% Yorkshire Bank ....... 121%

First Nat. Fin. Corp.... 14 9 First Nat. Secs. Ltd. ... 14 9 7-day deposits 11%, 1-mosti deposits 11%. † 7-day deposits on sums of £10,000 and under 11% up to £25,000 11½% and over £25,000 11½%. t Call deposits over £1,000 10%. Hambros Bank ..... 181% Demend deposits 11%.

Luxury Coach Body Builders

### **Continued Progress**

Results for the period ended 1st October 1978

(52 weeks) (57 weeks) £000's Profit before taxation 1,637 Profit after taxation (earnings) Earnings per share Dividends per share 7.1p Turnover, margins and profits again substantially

Funds adequate to finance future plans.

Changeover to steel-framed coach body construction completed.

Plentiful supply of work should allow further

PLAXTONS (SCARBOROUGH) LIMITED Castle Works, Scamer Road, Scarborough YO12 4DQ.

### INTERIM REPORT

UNAUDITED RESULTS FOR THE SIX MONTHS ENDED 27th OCTOBER 1978

	27th Oct.	26 weeks to 28th Oct. 1977	52 weeks to 28th Apr. 1978
Group Turnover	4,777,372	4,352,086	9,075,555
Group Profits before	.===	_	· ·
Taxation (Note 1)	90,345 NIL	110,385 NIL	205,983 21,441
Group Profit for the			. <del></del> .
period attributable to Members (Note 2)	90.345	110.385	184.542
NOTE 1.		•	

There is no provision for either corporation tax or deferred tax as it is anticipated that stock appreciation relief will be available to cover the amount of the year's profits and will not be clawed back in the foreseeable future.

The Group Profit for the 53 weeks to 28th April 1978 is stated before extraordinary items of £14,650.

TRADING RESULTS:

My Statement on the 6th October 1978 with the annual accounts to 28th April 1978 remarked that the strengthening of your Company's management team would result in increased. profits for the latter part of this financial year.
Our order books are full and the annual results should reflect improved profits provided the industrial climate is conductive

As in recent years no interim dividend is recommended. M. RADIN -

Chairman

16th February 1979

### MEDIUM-TERM CREDITS

# **Brazil Electrobras** achieves better terms for \$400m loan

BY JOHN EVANS

ELECTROBRAS, the Brazilian fully underwritten the loan. state electricity concern, is Other managers are Bank fuer raising a \$400m medium-term Gemeinwirtschaft, Credit Lyonloan with conditions which rep-resent a further improvement Long Term Credit Bank of in the terms of Brazilian state Japan. risk in the Euromarkets.

ortions, and carries the 1 per cent for Brazil in the guarantee of the Brazilian current cycle, and should be a Republic. The larger, \$360m, major test for its credit-ortion is for 12 years, and standing in the Euromarkets. arries an average spread of inder 1 per cent

The loan is divided into two first syndicated credit at below

Meanwhile, the \$300m syndicated loan for the National The margin for the first six Bank of Hungary was signed rears of this tranche is a per in London late last week. The sent over interbank rates, rising London merchant bankers. o 1 per cent for years seven Morgan Grenfell managed the p nine, and 11 per cent thereor redit, which comprised a liter. The \$40m 15-year tranche \$200m seven-year tranche at a a at a spread of 14 per cent 4 per cent spread. The \$100m stroughout. A management group, led by of 1 per cent for the first five DG Bank of Frankfurt, has years, and 1 thereafter.

### SWISS DOMESTIC BONDS Losinger blames lower rate for thin response

BY JOHN WICKS IN ZURICH

PHE BOND ISSUE of SwFr ancing and repayment on a 62 20m by Losinger AG, the lead- per cent issue from the year. ing Swiss building concern, of Berne, was not fully subscribed when it was offered on the omestic market from February 6 to 12. The 10-year bonds, with a coupon of 3½ per cent, had been taken over by the flandling banks so the company experiences no loss. Mr. Vinzenz Losinger, the

dompany chairman, who said the under-subscription was " not tragic," attributed it to the fact that the interest rate was too low. Neither the already-enticipated omission of 1978

same next week will be one of SwFr 80m worth of 12-year bonds by Renault Holding AG, the Zug subsidiary of the

1972, to be redeemed prematurely before its original maturity date of 1987. The new-money tranche will go to finance activities outside The bonds will be Renault offered with a coupon of 31 per cent at a price of 0.5 per cent above per between February 20 and 26, The Swiss engineering con-

cern Georg Fischer AG, of Schaffhausen, is presenting a SwFr 50m issue of eight-year bonds at 3 per cent next week Sorporate dividend nor Apart from a share of SwFr 3m Losinger's engagements in Iran to be reserved by the issuing had been decisive, he said company itself, all the bonds had been decisive, he said company itself, all the bonds.

The biggest single domestic have been taken over for market issue by a banking consortium headed by Credit Suisse. The proceeds of the bonds, which are priced at par, will go to the French car group. Of this sum, long-term expansion programme a share of SwFr 50m is refin- of the group.

be a shadow over the progress we hope to make." Shortly after, Mr. James Schlesinger, U.S. Energy Secretary, repeated his warning that unless the Iranian

oil flow is restored, problems could surpass the 1973-74 Arab

# **Profits fall** at Finance of Australia

By Our Sydney Correspondent THE Bank of Adelaide's fully-Finance Corporation of Australia, has reported a fall in earnings of 66 per cent, from A\$2.1m to A\$715,000 (U.S.\$812,000) in the half-year to December 31. The normal interim dividend of 6.250 cents a share is omitted.

Like many other similar groups, Finance Corporation found a problem lay in the low returns on land development and sales, which com-prise A\$80.2m or 16 per cent of its funds invested in trading activities. Its tradi-tional operations of loans on secured real estate, personal loans, hire purchase, leasing and consumer loans, which comprises A\$414.3m, or 84 per cent of funds invested,

made satisfactory profits.
In the area of land development and sales, the company has taken into account interest of only 44 per cent of funds invested. In the field of real estate loans and consumer finance, interest was brought to account on 96 per cent of total balances. A critical review of the land held for development and resale resulted in a
A\$681,000 principal write-off
and the exclusion from
income of A\$4m in respect of

assets totalling A\$61.9m. Despite the downturn the company maintained a strong liquid position. The cash inflow from debtors averaged almost A\$22m a month and liquid funds invested at call stood at A\$11m at the balance

Meanwhile, in spite of intensified competition in Australia's finance market, the Commercial Bank of Australia's wholly-owned finance group, General Credits, in-creased its profit by 3.4 per cent, from A\$7.28m to A\$7.5m (U.S.\$8.5m) in its latest haifyear, to December 31. The result was after an unchanged tax payment of A85m, and was unimpeded by provisions for overseas borrowings, which totalled A\$1m in the previous interim. written off were unaltered

# A. T. and T. seeks to hold Corporation off \$30m payment to Iran

prevent manufacturers Hanover

A hearing will be held on

Trust Company from paying the payments, but the motion mercial law."

\$30.2m to the present Iranian was filed to prevent any possible The suit said that American government relates to a fund request from being honoured, if Bell should not be forced to pay

different attitudes Reuter

NEW YORK—The American
Telephone and Telegraph Company said that the motion it had government, which it claims has based on Islamic religious laws no legal rights to those funds. has made any attempts to obtain recognised standards of com-

set up by Iran.

one is made. The company has through the letter of credit on that fund was established by been working in Iran for about documents presented by the imperial Iran Government two years, it said. as a guarantee to AT and T for AT AND T's court papers since the documents are frauduwork done on a contract to alleged that the present Iranian lent, as they are based on a purdevelop a telecommunications system in that country.

A hearing will be held on imperial Government with Government "which in fact cased to exist."

### Advance at supermarket chain

pany, the U.S. supermarket concern raised its net profit by 61 per cent in the fourth quarter in the same period of the previous year.

As a result, the company's net earnings for the full year showed an increase of 41 per cent, to \$34.60m from \$60.02m, or to \$6.22 a share from \$4.44. Sales for the last quarter were up 18.3 per cent to \$2bn, from \$1.69bn, and for the year gained 16 per cent, to \$7.83bn from \$8.75bn,

ing earnings in 1978 but added that gains might be tempered this year as a result of its new of 1978, to \$30.10m, or \$2.21 a store building programme and share, from \$18.69m, or \$1.38, start-up expenses at its Florida start-up expenses at its Florida distribution centre.

Super X had a 1978 operating net profit of \$22.6m in 1978, up from \$17.5m in 1977. Its sales, however, were down to \$521.7m from 1977's \$527.0m. Seven new Super X stores were opened in 1978, while Kroger planned to move ahead with 45 new stores this year.

Food results last year, Kroger 8.75bn. said, were aided by a change in Kroger said that its Super X the product mix resulting in

products and specialty items, while competitive prices on staples were maintained.

The concern's "superstores" attracted a steadily growing number of shoppers and had 5m more customer transactions in the last four weeks of 1978 than in 1977.

Kroger's capital outlay in 1979 is expected to reach \$155m, up from \$114.5m in 1978. Some 100 new food stores and 82 remodel-lings are planned for the year, compared with 104 new stores and 58 remodellings in 1978.

### Earnings rise at Kohler Brothers

BY JIM JONES IN JOHANNESBURG

KOHLER BROTHERS, South result of acquisitions. Africa's second largest printing and packaging group and a 72.6 per cent-owned subsidiary of Union Corporation, has benefited from the South African economy's emergence from

For the year to December 31. 1978, Kohler has reported a 19.8 per cent turnover increase to R92.2m (\$108m), from R77.0m in 1977, accompanied by a 51.9 per cent pre-tax profit improvement to R16.1m (\$18.8m), from The preliminary announce-

ment of audited results does not provide a breakdown of turnover and profit growth, though a major part of the improvement was organic rather than the

According to the chairman, Mr. Basil Landau, Kohler's profit improvement arises largely from the streamlining of operations carried out over a year ago when it became obvious that South Africa's economy was headed for a slowdown. The effects of these operating improvements have now worked through, helped by fuuer capacity opera-

Last year, negotiation for the acquisition of Reed's packaging interests failed to reach a con-clusion, and the Reed interests finally merged with Barlow Rand's packaging division to foresees last year's growth rate make the country's largest being maintained in 1979.

But according to Mr. Landau, Kohler does not see this as a set-back. It is actively seeking new acquisitions compatible with its existing interests in the paper, packaging and plastics fields. At 800 cents in Johannesburg for a dividend yield of 6.25 per cent and an 88 per cent premium on net asset value. Kohler's shares are seen as a sufficiently attractive rating for the company's paper to be used for acquisitions to the tune of around R20m. With this in mind and with the continuing upswing of the packaging sector, Landau

### HK lending rates up

HONG KONG's two largest demand, hanks, the Hongkong and Though Chartered are raising their best lending rate by a further I per cent to 10.5 per cent from today. In Government to dampen loan growth.

Though this is the fourth rise only 6 per cent, the Government and many outside observers have maintained that the banks announcing the move the banks have been very tardy in raising made it clear that they were lending rates, thereby fuelling responding to the urging of the an excessive rate of money

# EQUITIES Price Ed High 65 F.P. 20/2 119 68 Caledonian Hidgs..... 117 F.P. 16/2132 118 Hunting Assoc. Defd. 121 F.P. 9/2 37 31 M. Y. Dart Defd...; ... 36 9555 Nit — Spim Sapm Sadgwick F.New10p 4 pm **FIXED INTEREST STOCKS**

Price	Paid up Latest Renuno Date	1978;79 High   Low	Stock	Glosing Price &	+ or
1100 5 98	F.P. 26/1 F.P. 28/12 F.P. 5/1 F.P. 1/3 E10: — F.P. 11/1	1pm 1pm 1pm 100½ 89¾ 100½ 98p 140 102 100 9½ 9¼ 107p 100¾ 94p 94p	Assoc. Dairies 91/2 Pref. Chepstow Race'e 52 Cnv. Ums. Ln. 1988 Coine Valley Water 55 Red Prf. 1983. Findlay 82 Cnv. Cum. Red. Prf. Hawley-Leisure 122 Cnv. Uns. Ln. 1858 Mid Kent Water 52 Pref. 1984. Mid Southern Water 53 Red. Pref.1984 Rivington Reed 91/2 Cnv. Cum. Red. Pref. Seascope 101/3 Pref. Shaw Carpets 10/2 2nd Cum. Pref. E1	1pm 981: 100p 140 100 91: 103p 84ps	
		M DICK	ITE!! AFEFRE		

	"RIGHTS" UPPERS								
tasue Price pt	Am'unt Paid up	Latest Rémino Date		B/9	Btock	Closing prices	+ 01		
125 C5212 60 220 50 57 58	F.P. Nii Nii	9/2,25/3	\$24pm 9pm 255 2pm 9lapm	\$18pm 6pm 238 2pm 712pm	Baker Parkins. Bank of Nova Scotia. Bank of Nova Scotia. Burco Dean. Haslemere Estates. Hawkins & Tipson. Macpherson (D).	\$20pm 9pm 248 2pm 912pm	1		
58 10 18	Nil F.P. F.P,	22/1/23/1 14/2:14/3	8pm	41zpm 141z	Montfort Suter Electrical Defd, Swan Ryan Intl.	41: pm 16			

Renunciation date usually last day for dealing free of stamp duty. D Figures based on prospectus estimate. E Assumed dividend and yield, a Forecast dividend and cover based on previous year's samings. P Dividend and yield based on prospectus or other official estimates for 1979. 9 Gross. T Figures assumed, Cover allows for convenion of shores now ranking for dividend or ranking only for restricted dividends. E Placing price to public, pt Pence unless otherwise indicated. I Issued by tender, I Officred to holders of ordinary shares as a "rights." \* Issued by way of capitalisation, S Reintroduced. I Issued to former preference holders. Allotment betters (or fully-paid). © Provisional or partly-paid allotment letters. \* With warrants. † Unlisted socurity.

1 Royal Excha	CLIVE INVESTA inge Ave., London as at February 1	n EC3V 3LU. T	el.: 01-283 1101, :
Clive Fix	ed Interest Capi ed Interest Inc	tal	129.92

ALLEN HARVEY & ROSS INVESTMENT MANAGEL 45 Cornhill, London, EC3V 3PB. Tel.: 01-623 Index Guide as at February 15, 1979	MENT L' 6314.	rd.
Capital Fixed Interest Portfolio	100.15 98.00	÷.

LG. Index Limited 01-351 3466, Three month Silver 382.6-385.6 29 Lamont Road, London SW10 0HS. Tax-free trading on commodity futures.
 The commodity futures market for the smaller investor.

### Public Works Loan Board rates

Effective from February 17

	Gnom	IOTUE	Lebelo	Mon-dnom	IONUS	A" repeld.
Years	by EIPt	A‡	meturity#	by EIP†	A‡	maturity§
Up to 5	14	141	142	13	15	16
Over 5, up to 10	141	141	14#	15	15	154
Over 10, up to 15	14}	145	14	15	15}	15 <u>.</u>
Over 15, up to 25	145	145	145	15}	151	15
Over 25	147	144	14}	15)	15]	15 }
A 50						

\*Non-quota loans B are 1 per cent higher in each case than non-quota loans A. † Equal instalments of principal. ‡ Repayment by half-yearly annuity (fixed equal half-yearly payments to include principal and interest). § With half-yearly payments of interest only.

This announcement appears as a matter of record only



### Banco Nacional do Desenvolvimento Economico

US \$50,000,000

Medium Term Credit

Managed and Provided by

LLOYDS BANK INTERNATIONAL LIMITED CANADIAN IMPERIAL BANK OF COMMERCE

COMPAGNIE LUXEMBOURGEOISE DE LA DRESDNER BANK AG — DRESDNER BANK INTERNATIONAL —

THE MITSUI BANK, LIMITED

Arranged in co-operation with

**BANK OF LONDON & SOUTH AMERICA LIMITED** 

LLOYDS BANK INTERNATIONAL LIMITED



# CURRENCIES, MONEY and GOLD

# Dollar on thin ice

BY COLIN MILLHAM

President Carter's comments Mr. Carter may have succeeded on any large scale, although the last week about the situation in his aim, but there were one west German Bundesbank or two voices in the U.S. administration which did not share his largest amount this year. The dollar finished the week ably with the intention of southably with the intention of southing the foreign exchange market.
The dollar had been through a rather rough patch once again over the previous few weeks, largely because of the turnmoil in Iran, but showed signs of regaining a little stability last week. To some extent therefore

### CURRENCY RATES

February 18	Special Drawing Rights	Unit of Account
Sterling	0.643012	0.675222
U.S. dollar	1.28776	1.35261
Canadian dollet	1.53797	1.61447
Austrian schilling	17.4748	18.3481
Belgian franc	37.6541	39.5434
Danish krone	8.61909	6.94833
Deutscho Mark	2.38802	2,50773
Guilder	2.58131	2.71157
French franc	5.60743	5.78374
<u> </u>	1082.36	1136.85
Yen	258.131	271,265
Morwegian krone	6.55856	6.88611
Pesota	88.9977	93.4583
Swedish krona	5.62107	5.91968
Swips trans	2 <sub>.</sub> 15442	2.26020

### THE BOUND SDOT

	Ba k rato %	Day's Spread	Glose
U.S. \$ Zanndinn5 Zalidor Selgian F Danah K Dorr. Esc. Span. Pos. Jra Yrwgn. K. French Fr. Swedlah Kr Yon Austria Sch Swezs Fr.	612: 612: 70	8.79-5.75 94.68-95-30 138.26-188.55 1.8501.1.6541	2.8990-2.89 4.01;-4.02 58.50-58.6 10.28;-10.2 8.71-5.72 84.80-65-2 128,40-158

	Ba k rato	Day's Spread	Glose
U.S. 8	9:-	2.0010-2.0045	2.0025-2.002
Sanadian 5	1114	2,8995-2,8920	2,8900-2,591
Juilder	612:	4.00, 4.054	4.01,-4.02
Belgian F	8 .	68,40-56.65	58.50-58.60
Januah K	8 .	10.28-10.51	10.284-10.29
D mark	ă j	A.79-5.78	8,71-6.72
Port. Esc.	18	94.60-95-30	84,80-55.20
Span Pes	'i .	159.25-158.65	128,40-158.5
_ira	1610		1.6824-1.683
	7.	10.19-10.21	10.19, 10.20
Yrwgn, K. ' French Fr.		8.65-8.58	8.58 8.57
riench Fr.	912		8.74 8.75
SwedishKr	612	0.75 1.754	401-405
Yon	312	397-407	401-400
Mustria Sch	854	27.12-27.27	27.17-27.23
Swiss Fr.	1 (	5.34-3.57	1.35-3.36
, (	- 1		

Feb. 16	Ba k rato	Day's Spread	Glose
U.S. 8	9:-	2.0010-2.0045	2.0025-2.0035
Sanadjan#	1114	2,5955-2,5920	2,5930-2,5910
Julider !	612:	4.02, -4.054	4.013-4.023
Belgian F	8 .	68,40-56.65	58.50-58.60
Danish K	8 .	10.26-10.51	10.284-10.293
nark .	8 i	5.79-5.75	8.71-6.72
PORT. ESC.	18	94 60 95 30	84.80-55.20
pan Pes	· ii ·	138.25-158.65	128,40-158.50
Jra	Wile!		1.6824-1.685e
wyn. K.	3.5		10.19, 10.20
rench Fr.	912	8.55-8.58	8.58 - 8.574
Problem 14.			8.74 8.75
wedlank	612	597-407	401-405
ron	31a		27.17-27.22
wintria Sch	8 34	27.12-27.27	3.35-3.36
SWISS Fr.	3 (	5.34-5.57	2.00-0-00
, ,	- 1		

Fob. 16	Ba k rato %	Day's Spread	Glose
II.S. 5 Jannelians Jaulider Belgian F Januah K D mark Port. Esc. Span. Pos. Ira Vrwgn. K. French Fr. Swedishkr Yon Ainstriasch Swiss Fr.	9124 642: 642: 643: 744: 742: 742: 742: 743:	2.895-2.8920 4.02,-4.034 58.40-56.85 10.28-10.51 2.79-5.78 94.68-95-30 158.26-188.56 1.6504-1.6544 10.19-10.21 9,55-8.56	2.0025-2.0035 2.5930-2.59710 4.61;4.02; 56.56-58.80 10.20;1.023; 10.40-55-20 158,40-15,72 158,40-15,10 158,40-15,10 10.10,10 10.10,10 10.1

Feb. 16	Ba k rato	Day's Spread	Glose
U.S. 8 Canadians Julidor Belgian F Danah K D mark Port. Esc. Span. Pos. Ira Vrwgn. K French Fr. Swedlah K;		2.8955-2.8920 4.00_4.031 88.40-58.85 10.29-10.51 8.79-5.75 94.68-95.30 158.25-188.65 1.6504-1.6544 10.19-10.21 8.55-8.58 8.78-3.754	2.6025-2.6036 2.8930-2.5910 4.01;-4.02; 58.56-58.60 10.28;-10.29; 5.7 i -5.72 84.80-55-20 158.40-158.60 1,582;-1,583,60 10.13;-18.20; 8.58;-8.574 8.74 8.75
Yon Austriasch Swiss Fr.	31g!	397.407 27.12-27.27 5.34-3.87	401-405 27.17-27.22 3.35-8-36

Fob. 16	Ba k fato	Day's Spread	Glose
U.S. 8 Connotions Juildor Bolgian F Danuch K D mark Port. Esc. Span Pos. Ira Vrwgn. K French Fr. SwedishKr Yon Sinstel asch Stwize Fr.	9:24 11:42: 642: 642: 70:42: 70:43: 7	2.8985-2.8920 4.00, 4.051 68.40-56.85 10.26-10.51 8.79-3.78 94.68-95-30 158.26-155.55 1,8801-1,6841	2.0925-2.0836 2.5930-2.5919 4.011-4.024 56.59-58-50 19.281-19.292 128.40-139.50 1.6224-1.6825 10.136-18-50 18.74-8.75 401-605 2.717-27-22 2.55-8.56

rate %	Day's Spread	Glose	
912	2.8010-2.0045	2.0025-2.0085	
1114	2,4935-2.8920	2,7930-2,3910	
612:	4.02, -4.054	4.013-4.023	
4 .	58.40-56.65	58.50-58.60	
		10.284.10.293	
	94 68 95 30	R4_R0_55_20	
· ii ·	150 76, 158 65	128 40-138-50	
161-		1 6821-1 6834	
	16 01 01 01	10 19, 10 964	
		4 50 - 9 574	
312	9,00-0.00	0.74 0.75	
P-51	8.10 3.709		
312	201-101	401-400	
	27.12-27.27	27.17-27.22	
1 6	5.54-5.57	3.00-0.06	
	9: 2: 4: 5: 6: 6: 6: 6: 6: 6: 6: 6: 6: 6: 6: 6: 6:	9:- 2.9010-2.0045 1114 2.5935-2.8920 632 4.03, 4.03, 4 5 6.49-58.95 8 5.49-58.95 8 79-5.75 18 94-68-95.30 18 12-28-18-5.45 7 10.19-19.21 912 6.55-4.56 612 8.76-9.75 312 397-407	9:- 2,0010-2,0045 2,0025-2,0035 1114 2,5935-2,8920 2,5930-2,5910 692: 4.92,-4.034   4.01,-4.023   5.64,0-56,05   56,56-88,65   8

	'						
Fob. 16	Ba k fato %	Day's Spread	Glose	One month	% p.s.	Three months	g p.a.
U.S. 8 Danadians Julidor Belgian F Danah K D mark Port. Esc. Span. Pos. Jra Vrwgn. K. French Fr. Swedlankr Yon Antriasch Swess Fr.	114 612 8 8 18 18 19 12 612 812	5.79-5.78 94-69-95-30 139.25-189.55 1,850.3-1.6544 19.19-19.21 9.55-8.58 9.76 9.754 397-407	2.8900-2.8910   4.01,-4.02,    58.58-58.60   10.28,-10.29,    10.28,-10.29,   84.80-85.20   188.40-158.60	25g-15g c.pm 50-26 c.pm 14-repus-ade 514-214 pt pm 30-186 c.db 20-pm-50c.dls 13 hrepm-4ds 414-214 oreput 4-5 c. pm	2,51 5.35 5.12 0.58 8.88 -0.48 0.36 3.82 4.90 4.12 9.10 7.50	1.70 - 1.60 c. pm. 7 l. 5 l. 9 c. pm. 7 l. 5 l. 9 c. pm. 81-8 l. pf. pm. 81-8 l. pf. pm. 81-8 l. pf. pm. 25c-pm. Tic.der 4-8 live pm. 113-101 c. pm. 114-82 pm. 114-82 pm.	2.76 6.72 5.18 0.68 9.42 -5.05 -0.72 0.71 4.71 5.25 4.91 9.10 8.38

EXCHANGE	CROSS	RAT	EŜ
Feb. 16	Found	merting	U.

LONDON MON		Local Loc		елов	Discount :	Eligi		Mari
Canadian Dollar	0.418	0.838	1.554	168.2	3,585	1 408	1.681	704.0
Belgian Franc 100	1.708	5.491	5.545	686.6	14-54	5,730	6.862	2874.
Dutch Guilder	0,249	0.499	0.955	100.1	9 133	0.835	1.	418.9
Italian Lira 1,000	0.594	1.190	8.207	258.9	5.092		2.387	1000.
French Franc 10	1.167	2.337	4.335	459.1	2.554	8.915	4.589	1954.
Swips Franc	0.298	0.597	1.107	119.8		1.	1.197	501.6
Goutsche mark	0.269	0,539	1.	108.2	2.307	0 903	1.061	453.0
Japanese Yen 1,000	2.488	4,983	9.241	1000.	21.32	8.346	9.994	4187.

	Storling Certificate on deposit	interbank		negotiable bonds		Company Deposits		Treasury	Bank Bills &	Trade Bilis &
hernight	·	134-13		1 - 1	-	144	13-14	i — i	-	<b>-</b> .
days notice.	1 — 1	_	135g-135q	1	_	I i	_		. – !	_
days or		- 1	-	i — i	_	1419		j —	_ 1	_
days notice		135a-137a	131:-1318	- 1	134	1444	13	_	_ — i	
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wo months		1256-12121		13-13-4	154	14ta	13	12+i	13-13-	235a
		17: 17.1	131:-13:%	125-1510	155a	{	1272	124	127	1350
hree months.		4275-4216	1314-13-4	125a-121a	1512				12.	14
ix months	15,12.3			1254-13	134	1 = 1			**.6	
ine months	18-12-g	12,2-13,,				, - ,	_		_	_
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Lacat authorory general forth one rates fill tales in tale	nominally like are buyin	threu years g rates for	1 1 - 1 1 - N	lays' notice, or cent; lou r. Buying ro	r upare 1.5~	. 1.3-6 DUT CI	anı: IIVU Y	BOLS 171	J's 087 CZN	II. VSSIIK

GULD		
	February 1	6 February
Gold	Sullion (fine	ounce)
Opening	5246-2465; 5246-2464	\$2474-348 \$245-245-5
Morning	\$245,95	.5245,00

\$	Mr. Carter may have sucreeded in his aim, but there were one	on any large scale, although the West German Bundesbank	fixing(£125.278)
a	or two voices in the U.S. admin-	bought \$13m-on Wednesday, the	Gold Coins, domestically
8	istration which did not share his	largest amount this year.	Krugerrand, \$2824-3861; \$2831; 2861
-	optimism.	The dollar finished the week	/£141-143) (£141-145) New (*69-71 (*69-71
-	Mr. G. William Miller, chair-	at DM 1.8535 against the D-mark, compared with DM 1.8480 on the	Soversions: 341:-351a: -12341:-351a)
1	man of the Federal Reserve	previous Friday, and almost	Old \$71.78 \$71.78 Severeigns £35½ 35½ (55½) £55½-86½,
i	Board, speaking about the U.S.	improved slightly in terms of the	Gold Coins, Internationally
	economy, said that Iran "has to be a shadow over the progress we	Swiss franc to SwFr 1.66921 from	Krugerrand, \$253:2.25512.5247-249
I	hope to make." Shortly after.	SwFr 1.6630. The Japanese yen	(£126-127) (£125-124

previous Friday, and almost	Sovereigns £35½ -36½) 1£55½ -36½
improved slightly in terms of the	•
tuproved augusty at terms of the	Gold Coins, Internationally
Swiss franc to SwFr 1.66921 from	Krugerrand, \$253:2-25512 \$247-240
SwFr 1.6630. The Japanese yen	@126: 127() (£123;-124,
closed on Friday at Y200.30, com-	New \$64-66 \$63-65
pared with Y198.80 on the pre-	Sovereigna (£58-35) (£5112-5212) Old (571-75 (570-78
vious Friday. The U.S. currency	
also rose slightly against sterling,	Eovereigns (235: -36%) (235-36) \$20 Eagles   \$306-311   \$313-318

# closed on Friday at Y200.36, compared with Y198.80 on the previous Friday. The U.S. currency also rose slightly against sterling, to finish at \$2.0030, compared with \$2.0020 previously.

oil embargo.		2.0020 previo	_		5119 154		-
Until Mr. Schlesinger's state- ment the dollar had been quite	1	THE DO	LLAR S	POT AND	FORV	YARD	
firm, and although it then lost ground, within a few days the	Peb. 18	Day's apread	Close	One month	p.a. Three	months	<b>P.</b>
currency seemed to have recovered some of its confidence.	UK (reland	2.0010-2.0045	2.0025-2.0035	0.50-0.40c pm 0.50-0.40c pm	2.70 1.35-1 2.70 1.35-1	1.25c pm	2.6
It may well be skating on thin ice however, since it has been	Canada) Nothind. Belgium	2.0025-2.0070	83.76-83.79 2.0035-2.0055 29.23-29.25	0:30c dis-per 0:60-0:58c pm 7-5c pm	2.35 par-0. 3.75 2.14-3 2.90 21-19	2.09c pm	0.0 4.2 2.8
shown very recently that any	Denmark	5.1375-5.1430 -1.8630-1.8555	5.1375-5.1400 1,2532-1.8542	1.00-1.50pre dis 1.02-0.97pf pm	-5.13 3.15-3 6.90 3.24-3	3.65ere dis 3.17of pm	-2.5 6.9
new problem can easily send panic waves through the foreign	Portugal Spain	69.09-69.19	69.00-69,14	2-12c dis	-8.36 50-110 -1.30 34-540 -2.37 3.50-4	ರ ರೇತ	-6.9 -2.3 -1.5
exchange market. Central banks were not in	Italy Norway France	5.0930-5.0960	5,0945-5,0956	1,20-1.50lire dis 9,70-0.30ore pm 1,00-0.90c pm		.85ore pm	1.6
evidence supporting the dollar	Sweden Japan	4,3530-4,3660 200,20-200,65	4,0535-4,3645 200,20-200,40	0.90-0.70ore pm 1.10-1.00y pm	2.06 2.50-2 6.29 3.42-3	.4Core pm 1.32y pm	Z.1
FORWARD AGAINST £	Austria	13,56-13.58; 1 6685-1 6737	13.56;-13.57; 5 6895.1.6700	6.75-6.0kgrc pm	8,04 21-19 10.38 4.42-4		5.8 10.6

OTHER MA	† U.S.	cents per Cana	dain S.	
Feb. 16	£	\$		If Note Rates
Argentina Peso Australia Dollar Brazil Cruzolro Finland Markka Greek Drachma Hong Kong Dollar Iran Rial Kuwait Dinar KD Luxembourg Frc.	73.230.73.994 9.61.9.63 148.3.156.2 0.544-0.554	0.8825-0.8835 21.45-21.95 3.9635-3.9655 36.05-36.95 4.7960-4.7380 74.79 0.2741-0.2742	Austria Belgium Denmark France Germany Italy Japan Metherlands Morway	59-60. 10.24-10.34 8.60-8.60 3.65-3.75 1,650-1,700 398-408 3.95-4.05
Malaysia Dollar New Zealand Dir. Soudi Arab. Rival	4.3865-4.3990	2.1940-2.1950 0.9475-0.9495	Portugal Speinswings	90.97

# Six-month forward dollar 2.43-2.33cm; 12-month 4.57-4.57c pm.

Feb. 16	Peunamering	U.S. Dollar	Deutschem'k	Japan'se Yen	FrenchFranc	Swiss Franc	Dutch Guild'r	Italian Ura	Canada Dollar	Belgian Franc
Round Sterling	0,499	\$.003	3.715	402.0	8.570	3.355	4.018	1683.	2.391	58.55
U.S. Dollar		1.	1.855	200.7	4.278	1.675	2.006	840.2	1.193	29.23
Coutsche mark	0.269	0,539	1.	1000.	2.307	0 903	1.061	453.0	0.643	15.76
Japanese Yen 1,000	2.488	4,988	9 <u>.2</u> 41		21.32	8.346	9.994	4187.	5.947	145.6
French Franc 10	1.167	2.337	4.335	459.1	10	8.915	4.588	1964.	2.789	68.32
Swips Franc	0.298	0.597	1.107	119.8	2.554	1.	1.197	501.6	0.713	17.46
Dutch Gulider	0.249	0.499	0.985	100.1	9 133	0.835	1.	418.9	0.595	14.57
Italian Lira 1,000	0.594	1.190	8.207	258.9	5.092	1,993	2.587	1000.	1.420	34.79
Canadian Dollar	0.418	0.838	1.554	168.2	3.585	1 408	1.681	704.0	4.083	24.49
Belgian Franc 100	1.709	5.491	6.545	686.6	14.64	5.730	6.862	2874.		100.
	DATES						•	Manaew	04770	

QIIDOI1										
Feb. 15 1979	Sterling Certificate on deposit	interbank		Local Auth. negotiable bonds		Company Deposits		Treasury	Eligible   Bank Bills &	Fine Trade Bills &
ernight days notice days notice days notice or month re months t months ne months	15% 1514 15,2-15,1 15,2-15,1 154 15,1 15,12-1	134-13 1359-1378 1378 1376 1236-1219 124-1246	1312-1558 1312-1558 1314-1554		154 154 154 155 155 151 154	141g 141g 141g 141g	13-14 	12 - 125a 12 - 125a 12 - 125a	13/g-13/2 13-13/2 12/4 12/c	155s 155s 135s 14
		nance house	15-134 25 Seven 6	lays' notice,	others at	. 1.3 % DUT C	onii kve v	BOLS 171.	J's 087 CZN	t. Valine

	MOBEL REILS	
•	NEW YORK	
-	Prime Rate	10
	GERMANY	
	FRANCE	-
	Discount Rate Overnight Rate One month Three months Six months	7 6.8125 6.8375
i	JAPAN	
	Oiscount Rate	4.375

Only rarely is a great new car launched. The Vauxhall Royale is two great new cars. The Royale Saloon and the Royale Coupé.

Both models have beautifully proportioned aerodynamic body designs which transcend the whims of fashion. Both models share a sophisticated suspension system and reassuringly responsive steering.

And both models boast a powerful, yet quiet, 2.8 litre 6-cylinder engine of remarkable smoothness.

Inside the Royale the emphasis has been placed on painstaking attention to detail, resulting in a degree of driver and passenger comfort which has to be experienced to be appreciated.

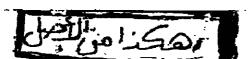
Overall specification, naturally, is of a standard befitting a car of the Royale's exceptional quality. So much so, in fact, there's only one optional extra available. A highly refined air conditioning system.

Each year, many cars are launched, few are chosen. Choose one of the few.



VERY, VERY OCCASIONALLY A GREAT NEW CAR IS LAUNCHED.

ROYALE SALOON 28.354, COUPE 28.662, PRICES, CORRECT AT THE TIME OF GOING TO PRESS, INCLUDE CAR TAX, VAT AND FRONT SEAT BELTS, DELIVERY AND NUMBER PLATES EXTRA MANUAL TRANSMISSION AVAILABLE AT NO ADDITIONAL COST, AIR CONDITIONING AVAILABLE AS AN OPTIONAL EXTRA PLATES EXT. 4160, PERSONAL EXPORT ENQUIRIES, EXT. 3830.



## **English law out of** tune with EEC

BY OUR INSURANCE CORRESPONDENT

FOR NEARLY 900 years English proposals contained in the fifth lawyers and legislators have draft of the directive but to been able to develop our laws recommend as they have thought fit, with-out being obliged to take notice which take little or no account out being obliged to take notice of the weight of insurance legal of developments on the opinions on the Continent. Continent or in the English-

Incidentally, Scottish lawyers never been independent, single-mindedly but Scots law has to a consider- dicated by harmonisation to the

Britain's membership of the far as possible the status quo. EEC has put an end to this unfettered legal freedom of action.

The status quo. The far as possible the status quo. But being realists, intent on fettered legal freedom of action. In those spheres where the insurance operations in Europe, Treaty of Rome bites, and where British insurers have recognise the civil servants in Brussels that there is a body, even a are busy creating European majority, of Continental legal directives for the better impleinsurance opinion, which is in mentation of the treaty, our law-the position to require changes yers and negotiators are being that must pay much more regard forced to reapraise fundamentals. But the tradition of utter thinking and much more regard independence dies hard, as wit- to what Europeans want to do.

the insurance laws of the Community's members, thereby eliminating unfair competition. So far, five drafts have been produced of the harmonisation directive and as none has found favour in its entirety, a sixth is being produced.

Last summer when negotiations on the fifth draft were accept them as a basis for fur-slowing down and all concerned ther negotiations or perhaps were wanting a breathing space even sweet that the UK need not the Department of Trade asked the Lord Chancellor to refer certain aspects of the harmonisation issue to the Law Commission. The commission was asked "to consider the effect on the liability of an insurer, and on the rights of an insured" of a number of aspects of non-disclosure in further discussions on the and misrepresentation "particu-larly in the light of the Fifth monisation directive. And in the Report of the Law Reform Commeantime what British insurers directive on the co-ordination of mission does not change its laws, regulations and adminismind in the light of the

prised to see that the commis- tions and secondly in due time sioners have taken the opport to implement the EEC harmonifunity not closely to analyse the sation directive.

far reaching

British insurers, while acceptspeaking world, to which ing the inevitability of gradual English law has been exported. Incidentally. Scottish lawyers continue to be anxious and gradual continue to be anxious an British insurance laws and prac-tice and to keep changes preable extent been assimilated absolute minimum: indeed, left with English law over the last alone, British insurers would 200 years. probably prefer to maintain as

ness the Law Commission's Canute-like the Law Commission in 17 short pages in Work-An issue discussed for some ing Paper 73 brushes the relewhile inside and outside the EEC is the need to harmonise directive aside and recommends directive aside and recommends reform of our laws without regard to tides flowing from the Continent. Last week Mr. Jus-tice Kerr, chairman of the commission, ventured the view that once Working Paper 78 had been read in Brussels, the Europeans might see how reasonable its proposals were and either

to Continental than to British

so farther down the harmonisa-tion road. But considering the course of negotiations so far, neither prospect seems remotely likely. Regrettably, the working paper provides little positive aid for the British negotiators involved mittee 1957 and the draft EEC must fear is (if the Law Comtradve provisions relating to representations it receives insurance contracts, and to make recommendations."

Last week Working Paper 73 was published, containing the Law Commission's provisional views. Insurers have been surface and more recommendations and administrative including the light of the representations it receives following the publication of this working paper), that the industry may have to face the double upheaval of legislation. Insurers have been surface the commission's recommendative and received the commission's recommendation.

### Senior position at **Black and Decker**

Mr. Francis P. Lucier, presidently chairmen. Mr. J. G. Hogg dent and chief executive of (Hogg Robinson and Gardner Black and Decker Manufacturing Mountain), Mr. B. H. Jenkinson Company of the U.S., has become thairman in place of Mr. Alonzo surance)). Mr. C. F. Frizzell G. Decker, Jar., who is retiring (Norman Frizzell UK) and Mr. from that position. Mr. John C. H. R. L. Lumley (Edward Lum-Brooman (an Englishman), at ley and Sons) have been made present chief operating officer of chairmen of the aviation, marine, the company, and chairman of motor, and non-marine executive the British subsidiary, Black and committees respectively Decker Limited succeeds Mr. Lucier as president. This is the Lucier as president. This is the first time an Englishman has become the president. Further appointments in the U.S. include Mr. R. H. Fidler, president of the European Group, as an executive vice president of the parent concern. Mr. Fidler, also an Englishman injured the UK an Englishman, joined the UK company in 1955

Captain A. S. Tippet is to be assistant chief of Fleet Support in succession to Rear Admiral W. T. Pillar in the acting rank of Rear Admiral in March, and to be promoted to the substantive rank of Rear Admiral in

March 1. He will remain a consultant to the company.

ment. He succeeds Dr. S. C. C. Bate, who retired in January.

Mr. Paul Stebart has been elected chairman of the ESMEE FAIRBAIRN CHARITABLE TRUST in succession to Mr. G. P. S. Macpherson, who has served as chairman for 10 years and will remain a trustee.

Mr. F. Swarttouw and Mr. D. Krook have been appointed as directors to the FORKER Board of management in the Nether-lands, Mr. Swarttouw will also be chairman of the Board and Mr. H. J. Grobben is appointed

J. Bibby and Sons, has been appointed a director of the MERSEY DOCKS AND HARBOUR COMPANY following the retirement of Mr. Robert

Mr. Leslie Young, chairman of

THE BRITISH INSURANCE BROKERS ASSOCIATION committee for 1979 comprises: Mr. as chairman and Mr. R. V. Wood (Lowndes Lambert Group) and Mr. D. G. Lyon (Jardine Mathe-

Brigadier R. C. Halse has been appointed as the first Colonel Commandant of the newly formed ARMY LEGAL CORPS.

Superintendent E. S. A. Craig-McFeely, WRNS, becomes direc-tor of the Women's Royal Naval Service in the rank of Com-mandant in July 1979 in succession to Commandant S. V. A. McBride, WRNS. In addition to Mr. David Barnett, deputy McBride, WRNS. In addition to managing director of Brooke her overall responsibilities for the WRNS, the director WRNS tralla to become head of also advises the Admiralty Board on the Royal Navy's uniform and clothing policy. clothing policy.

> Mr. R. S. Campbell has been appointed general manager— public affairs of the AUTO-MOBILE ASSOCIATION.

Dr. John Burland, head of the geotechnics research unit at the BUILDING RESEARCH ESTABLISHMENT since 1972, has been appointed assistan Mr. Brian L. J. O'Brien will has been appointed assistant retire from the Board of YOUG-director in charge of the BRE HAL CARPETS (HOLDINGS) on materials and structures department.

Bate, who retured in	J 18ph	ary.
TEL AVIV		
Company		Change on the week
Banking, Insurence and Benk Leurs to Israel	387	
Land Development Africa Israel Inv. 1510 Israel Land Devpt. Br. Property and Building	1,070 238xd 348	- 40.0 - 26.0 - 18.0
Public Utility Jeres! Electric Cpn	323	<b>— 18.5</b>
'investment Companies' Bank Laumi Invest "Cla!" Israel Invest Discount Invest	428 399 -319xd	- 38.0 - 10.0 - 19.0
Commercial and Industr Alliance Tr. & Rubber Elco Br		+ 18.0 - 10.0 - 21.0 - 11.0 + 22.0 - 8.0 - 21.0 + 12.0

38 | Revion | 467g 2514 | Revnolds Metals | 357g 5214 | Revnolds R.J. | 561g 20 | Rich son Merrell | 23 281g | Rockwell inter | 37 281g | Rockwell inter | 37 281g | Rockwell inter | 37

CANADA

### Indices

NEW YORK -DOW JOXES

	F-6-	Feb*		F-6	Feb.	Fab	197	8-79	SinceCo	mpil'tn
	Feb.	15	Feb.	13	12	9	High	Low	High	Low
• industr'is	B27.81	129,09	\$29,78	820.21	824,84	B92,55	987,74		1951,78	
H'me B'nds	1		25,21		86,38		(4/1,78)	84 <b>,03</b> (15/1/79)	(11/1/73)	(वागुरुद)
	211,77 114,85	1		212.56 163.72	i -		(B/91	198,31 (9/1/78) 97,75	279,86 (7:2:69) 166,52	
Trading vol	!						بأبق	(20:12)	(20/4/69)	
	1				20,630	24,650	. –	_	-	_
e Day's high	3 223,b	74 10W	851,69							-

	16	15	14	15	12	9	High	Low	High	Low
;indust'is	110,00	110,00	110,22	110.36	700,50	109,10	118,71	95,52	134,84	3.53 GD:5:33
(Goznposite	98,67	98,73	98,17	98.85	94,20	97,37	(106.98) (12/9)	B8_98	125,85 (11/1/63)	4,40
Feb. 14   Feb. 7   Jan. 31   Year ago (appr							pprox			
Ind. div. yield %			5	5,07		6	4,99		5,33	
ind. P/E Rati	io o		8	.98	8,8	10 j	9,05		8,57	7

N.Y.S.E. ALL COMMON		Fe	b. 16 Feb. 15 Feb. 14
Feb. Feb. Feb. Feb.	1978-79	issues Traded 1,1	
16 15 14 13	High   Low		' (
55,37 55,38 55,42 55,46	50 70 1 40 77	Fallo	508   803   695 468   447   445
99,00133,35,35,48	(11/3) (8:3)	Unchanged	468 447 445 - 12 23
	( (11/2)   (D.2)	New Highs	- 12 23 - 11 14
		New Lows	11 14
MONTREAL	Eab Eab E	l Feb	1978-79
	Feb. Feb. F 16 15	4 13 High	Low
Industrial	252.45 252,08 25	2,22 251.38 · 262,45 (}h	,4,79c   152,90 (16.2)
Combined	255,10 255,05, 23	<b>5,17</b> 284.81 ; 257,03 (Sy	(1 (3) . 17 <b>0,62</b> (3071)
TORONTO Composite	1888.4   1381.5. 13	80.0 1377.6 1383.4 (L)	(2·77, 995,2 (5 <b>0</b> l)
JOHANNESBURG	i i		
Dold		79,6 201.3 290,7 (7 ) 09,2 309,9 309,9 (13	2,79)   186,0 (20.4) (2,79)   194,9 (17,5)
(Fab. ) Pre	- 1978-9 1978-9		196. 1975.9 Idia 3
	is High Low	, Je:	these High has
Australia(*) 576.36 573.		Spain 1447 97.02	14 2 79 (12.1 79)
Belgium (p.: 164.50   104.	(18/2/79 (1)3) 50 (165.35 (80.45 (7/2/79 (23/6)	i	Salaba Wagad Salaba
Denmark(** 55.29 93.	26   98.96   88.08 (14a)   (30/10)	Switzerlden 318.4	315.9 325.7 271.0 (114.0 1.00)
France (11) 71.4 71.	5 83.0 47.6		
Germany(11) 793.8 792	(19/10) (17/5)	Toronto 309-1,00	
Holland (55) \$2.1   82.	0 93.1 76.0	\$ 400 Industrials.	f Excluding bond. § 400 Industrials, 4.1
Hong Kong . 551.24 858.	DE   207 50 344 6	¶ Sydney All Ord	ce and 20 Transper inary. # Belgian S
Italy (11) 72.01 72.	59 S2.2n 55.45 (25/9) (10/1)	tt Paris Bourse 19	onhagen SE 1.1. 61. ++ Commerchar.
Japan (a) 452.83 450.	89 462.97 364.04 (\$1,1)773 (4/1)	1970. 99 Hang	Amsterdam Industrio Seng Bank 31,
Singapore(6) 358.22 . 358.	02 414.50 352.0	a Tokyo New Si	ciale Italiana 197; 8 4/1/68, b Straits
	(S/B) (A/1)	Times 1900. e C	losed. d Madrid
Indices and base of	fates (all base	f Swiss Bank Con	olm Industrial 1-1/65 porution. – u Univail-
values 100 except NYSI		able.	

TOKYO 9

Feb. 16

Mitsubishi Hoʻvy Mitsubishi Gorp Mitsui & Co

kisul Prefab.

### EUROPE

TANDARO AND POOM

		_
STERDAM		BRU
	Orlean Lab day Day 13714	
Feb. 16	Price   + or Div. Yld	ı
id (FL20)	118.5+0.5 -18 4.7	

Feb. 16	Fis.		%	90	Feb, 16	Price Fre.	+0
Ahold (FL20)		+0.5		4.7			-
Alczo (F).20)	50.7	+0.2	1.5.		ArbedBekant 'B'	2,270	+70+15
Alg'm Bk (F) 100)	364	- I 8.0+	A234		C.B.R. Cament.		4
AMEV (Fi.10) Amnob'k (Fi.20).		-0.4		5.4	Cockerii		142
Bilankori	100	0.5		5.9	EBES	2,435	-10
BokaW'stm(Fi20	127.5	+0.5	BO	6.3	Electrobail	6,910	- 2D
Buhrm' Tetter'	78.3		26	7.1	Fabrique Nat	3,450	-50
Elsavier (F380)	280.4	-1.6	27.5		G.B. Inno Bm		
Engla N.V. B'rer		-0.2			Gevaert		
EurComTst(F)10		+0.1			GBL (Brux L)		+ 10
Distal Br cad (FI		+1.3	14		intercom,		40
Heineken (F125)	92			5.9	Kradietbank		
Hoog`ns (Fl.20) HanterD.(Fl.100	35.t	:0.1 :0.8	18	5.5	La Royala Beige		*******
K.L.M. (F). 100)	103 0	-2.7	1.5	2.9	Pan Holdings		
nt Muller(FI.20	45 0	-0.1	19	8.4	Petrofina		+15
Hat Mad Ins F110	109.5	+0.2	48	4.4	Sec Gen Banque		******
NedCr'dBkFL20		-0.2		7.4	Soc. Gen. Beige		-10
Nat.Ned InsF110 NedCr'dBKF1.20 NedMidBkiF1.70		+0.1	22	5.3	Sofing	13,530	÷10
Oce (FLSO)	176		36	4.1	Solvay		-10
OGEM (FL10)	28.4	-0.2	25	8.1	Traction Elect.		-40
Van Ommeren	165.5			-	UCB		-4
Pakhood (F1.20);	48.5	+1.5			Un Min. (1/10)		+8
Ph       ps (FL 101	23.9	+0.2	17	7.1	Vicile M'ntagne	T'BON :	÷35
RinSch VertFille		-1.7	li				
Robeco (FL50	165	ļ	25.4		COPENHAGE	M 4	
Rollneo (FL50)	127.5	1	8				
Rorento (FLSG)	123.8	+0.6	ALII A	8.6	Fab. 48	Price	4 or
Royal Dutch F120 Bigyen burg	252	-0.5	GE /s	7.9	Feb. 16	Kroner	_
Tokyo Pac HideS	126 6	-0.5	en te	0.5			
Inilever (FL20).		+0.3			Andelebenken	143	-34
Viking Rea					Danake Bank	12712	_5,
Volker Stavin	92.3	-0.2	10	10.5	East Asiatic Co.	1384	14
West, Utr. Hypok	425.7	-0.1	55	1.6	Finambanium	14% 14	
				_	Bryggerier		
MAKAIV				- 1	For Papir	110	***
	-				Handelsbank	18712	
اعفيد		+or			G Nthn H (Kr90)		-1
Feb. 16	2	- 1	2	%	Nord Kabel	188lg 204	7 44 21 <sub>2</sub>
Creditanstalt	842		10	-	Novolnd'stries B Oliefabrik		+1
	049	***************************************	98	8.9 3.4	Privatbank	1593.	114
Perimoser		_3	38	8.5	Provinsbank	1593 <sub>4</sub> 1484	
emperit					Soph Berensen		
teyr Delmier.				4.0			+1

9444511	Pan Holdings Petrofina Soc Gen Banque Soc. Gen. Beige Sofina Solvay Traction Elect UCB Un Min. (1/10) Vicile M'ntagne	3.925 3.405 2.190 3.530 2.635 2.815 1.266 784 1,860	+155 -10 +10 -10 -40 -4 +8 +35	180 204 140 215 22 18	4.6 6.0 6.8 6.1	Dragados Espanola Facaa (1, Gal. Prac Gp. Vela: Hidrola Iberduero Petrolibar Petroleos Sniace	Zine 000) iados zajuoz (	(400)
•	COPENHAGE					Sogefie		
	Feb. 16	Price Kroner	+ 01	Div.	Yid.	Telefonica Union Ek		******
	Andelabunken Danske Bank East Asiatic Co Finambanken	13712	-14	(19 19 19 12	7.7 9.4 8.6 9.5	STOCK	10DN	
	Bryggerier For Papir	110	** * ***	12	4.6	Feb.	18	Prio Kron
١.	Handelsbank G Nthn H (Kr90) Nord Kabel	500 188lg	-1 +1a	12	8.5 5.6 5.4	AGA AB (K Alfa Lava	IKr.60	139
	Novelnd'stries B Oliefabrik Privatbank	155 1593 <sub>4</sub>		8 12	5.9 8.6	ASEA(Kr.: AtlasCo'c Billerud	o Kr25	55
5	Provinsbank Soph.Berensen. Superios			11 12 13	7.7 5.4 6.9	Bofors Cardo Cellulosa. Elet'lux' B		189 189 250 111
1	GERMANY *		1			Erics'on'i Esselts (F Fagersts.	(Kr50	138 300 121
-1		0-1 1	i and	-	201.4	Granges	Freelin	60

MILAN

OSLO

PARIS

Feb. 16

Feb. 16

ISSELS/LUXEMBOURG

5	Feb. 16	Kroner —	<u>i % i</u>	*	Union Elec.	_	- 2	
	Andelabunken Danake Bank East Asiatic Co.	1371 <sub>2</sub> — 5 <sub>2</sub> 1381 <sub>4</sub> — 1 <sub>4</sub>	19	7.7 9.4 8.6 9.5	<b>STOCKHOLM</b>			
	Bryggerier For Papir	263	12	4.6	Feb. 18 Kron	or + or	Div. Kr.	Yk 3
Ţ,	G Nthn H (Kr90)	1871 <sub>2</sub> — 4 500 —1	12 12 12	3.6	AGA AB (Kr. 40). 19 Alfa Laval(Kr.50 13		5	2.
-	Nord Kabel Novolnd'stries B Oliefabrik	204 -212	8	5.4 5.9	ASEA(Kr.50) 7 AtlasCo'co Kr25 11	7	i ž	Ď.
4	Privatbank	15934-14	提	8.6	Billerud 5 Bofors 13	0.5		2.
0	Soph.Berensen. Superios		12	5.4 6.9	Cardo	0 +1	5.75 10	3. 4.
•		i	1	_	Elet'lux'B'(Kr50 11 Erics'on'B(Kr50 13	B  1	5	4.
	GERMANY *				Fagersta	1 -2	84	2. 3.
	Feb. 16	Price + or DM	Div.	Yid.	Handelsbanken 38 Marabou 15 Mp Och Dometo 8	2 -1	16	4.
١	AEG	67.8+0.7			Sandvik 'B' Krs. 25 S.K.F. 'B' Krs. 6	5 -5 8 -1	5,75 4,5	2. 6.
	SMM	224.2 0.3	28,12	5.3 6.3	Skand Enekilda. 18 Tendetik B(Kr50 7	8 -0.5	5	5. 6.
1	Bayer	135.2 + 0.5 135.0 + 0.7 277	18,75	7.1 6.9 8.1		8.5 +0.5 2.5 +0.5	<u>y</u>	7.
	Bayer Hypo Bay. Vereinsbk Commerzbank	282.5-1.5		5.D		_		
	Conti Gummi Daimler-Benz	70.2.40.6	98,12	4.6	SWITZERLAND P			
	Degusea Demag Deutsche Sank.	161 -2 279 +1	26,66 17,18 1 28,12	5.0	Feb. 18 Pric		Div.	Yld Q
	Dreadner Bank Dyckerhoffze't Gutehoffnung	220.5—0.5 171 +1	28,12 9,38 18,28	5.4 2.8 4.1	Aluminium1,42	9 –6		2.
1	Hapag Lloyd			7.0	BBC 'A'	5 -5	10 92	2.

**AUSTRALIA** 

Price | + or Div. Yid.

SPAIN V

B. Granada (1.000)... Banco Hispano ...... Bco. I. Cat. (1,000)

B. Suntander (250)...

Bco. Urquijo (1,000) Banco Vizcaya Banco Zaragozono ...

100 105 - 4 41.50 - 1.0

	55	-0.5	-	-	
(r50	189 189 250	+3	94 5.75 10	2.9 5.0 4.0 4.7	HONG KONG
(r50 e)	138 305	—1 !		4.5	Hong Kong S Feb. 16 Fe
90) Kon	121 60 582	-0.5 -1	16	3.8  4.2	Amaigamated Rubber 73.05   1 Cheung Kong
neto Kra.	152 85 255	+2.5 -5	8 5,75		Cosmopolitian Prop ; 1.50 ; Gross Harbour Tunnel 9.05 ; E. Aeia Navigation ; 4.55
rs il da (r50	78	-1 -1 -0.5	4,5 9 5	5.6 5.4	Hang Seng Bank
)) <u></u>		+0.5	<u>y</u>	7.2	Hg. Kg. Kowloon Wharf. 29.00 2' Hong Kong Land 8.00   Hg. Kg. Shanghal Bank 18.40
AN					Hg. Kg. Shanghai Hotel 19.70 Hg.Kg. Telephone:28.00 20 Hutchinson Whampos 4,275
18	Price Fre.	+ or	Div.	Yid.	Jardine Secs
lean sala	1,420	-5	10	2.8 2.7	Rubber Trust
100	1,285 1,015 700	-5 -15 +1	22	1.8 2.2 3.1	Whoelock Maritime A 15.45
4	2,585 2,010 715		10	3.5	zd Ex-dividend, † Buyer, ; Sel Stap, Suspended.
)(	7.875	-750 -25 +40	1100 110 21		BRAZIL
100)		-5	21 #86.5	1.4	Feb. 16 Price + or Gruz — Div.

	PEIGINE GOCS
16	New World Development 2.05 2.02
	Rubber Trust   :5.15 5.1
2.8	Sime Darby 6.65 6.5
	Swire Pacific A 8.25   8.50
2.7	Wheelock Marden A 3.025 2.9
1.8	Whoelock Maritime A 15.45 3.5
	Winsor Industries 2.95sd 5.00
3.1	
3,3	zd Ez-dividend, † Buyer, z Seller,
· 2.6	Susp. Suspended.
· 3.6	
1.4	DW 4 - 44
1.1.4	BRAZIL
9 8	Place 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
2.5 1.4	Price + or Cruz Y

i	100,10	Oruz	: —	601V.	.0
Ė	Acaeita	0.88	+ 0.03		
	Bancodo Brazil.	1.46	+0.14		
3	Banco Itau PN	1.38	, T D.D&		
•	Balgo Mi'elra OP	Q.96	+ 0.03	0.08	B.35
5	Lojas Amer O.P.	2.08	-0.01	0,20	9.61
9	Petrobras PP	1.70	+0.93	0,13.	7.64
	Pirelli OP	1.56	inner	0.16	18.52
	Souza Cruz OP	1.78	- 0.02	0.21	11.75
5	Unip PE	5.00	-0.20	0.25	5.00
	ValeRioDogo PP.	1.20	- D.04	0.17	14.18
7		–			
ы	Turnover Cr. 11	0.8m.	Volum	o 72.8	im.

•	DISHIDIZOOD P	n.,	:30		0.17
	Turnover Cr. Source:	110.	8m.	Volum	o 72.81
	Source.	nro	ug	Jeneiro	ĐĘ.

1.4	Turnover Cr. 110.8m, \ Source: Rio de Ja	/elume 72.8n Inciro SE.
	JOHANNESBURG	
or		Rand '4 or 7.55 +0

			February 18	Rand	'- pr -
Feb. 16	A	;+or	Anglo American Con.	7.55	+0.15
Feb. 10	Aust S		Charter Consolidated	14.35	
		1	East Onefontein	15,50	-0.15
MIL (25 cents)	÷0.72	-0.01	Elsburg	1.38	-0.03
row Australia	±1.03		Harmony		0.00
ATIL 81	12.26	-0.01	Harmony	7.75	
pol Exploration	t1.45	+0.82	Kinrosa		
pol Patrolaum	†0.75 †1.70	+0.01	Kloof	13.60	
oc. Minerals	12.70	j 14.0.06	Rustenburg Platinum	3.10	+0.08
oc.Con.industries	†2.3B †1.89	+0.01	St. Helena		+0.10
LL		10.01	Southwaal	11,10	+0.10
dimeo	tD.55		Gold Fields SA	131.75	-0.25
st. Foundation inv	†1,0D		Union Corporation	7.25	-0.09
et. Oil & Gas	10.90	+0.07	De Beers Deferred	9,0	-0.09
mboo Creek Gold	+D_22	+0.02	Blyvooruizicht	6 80	.+0.10
e Metal Ind	11.02		East Rand Pty	G.D	
<b>a</b>	12.40	-0.05  +0.01	Free State Geduld		
igalnville Copper	†1.93 †1.85	10.01	President Brand		
ken Hill Proprietary.	110.2Q	+0.52	President Stayn		-0.25
South	†1.55		Stillontein	7.60	+ 0.15
ton United Brawery.		1	Welkom	6 70	
2(S1)	15.48				+0,10
R (\$1) Kburn Cement	11.35		West Driefontein		~0.50
es (G.J.)	t2.20		Western Holdings		-0.50
is. Goldfields Aust	18.80	j	Western Daep	17.25	
ntainer (\$1)	†2.B0	i	IMDUSTRO	AVE	
zine Riotinto	18.5B	+0.09	Anglo-Amer. Industrial		
stain Australia nlop Rubber (50 centr	11.45	40.02	Barlow Rand		-0 10
OR	10.92	4-9.92			
er-Smith	12.75	+0.03	CNA Investments	2.15	·~0.05
savour Resources,	0.25		Currie Finance	1 08	
Industries		i	De Beers Industrial		
- Property Trust	11.52	0.05	Edgars Consd. Inv		·~ 0.10
mersley	12.30	+0.01	Edgars Stores	144.0	
ker		-D.Q2	EverReady SA	12.76	.+0 02
Australia	:2.32 :0.30	1	Fed. Volksbeleggings	\$2,20	
er Copper	10.88	i	Greatermens Stores .	2.75	-0.03
berlana Minerala	11.36	-0.10	Huletts	2.55	
	11.15	-0.04	LTA	2 55	-0.05
nard Oil	10.24	-0.04	McCarthy Rodway	0.80	-0.03
CHIS EXCHONIZION	10.42	;			-0.03
tramar Minerals '	+D.13		NedBank	3 30	-0.03
4 Motolines '	15.09	'+0.06 l	OK Bazaars	8.40	
ers Emporium	11.84	[0.01	Premier Milling	†5.8D	−0 65
Wb	†2.61		Pretoria Coment	4 20	$\pm 0.50$
noiss international	†0.98	-0.02	Protea Holdings	1.70	-0.05
Broken H'dings (50c).	1161	+0.02	Rand Mines Properties	2.55	
Search	†1.55	+D.05	Rembrendt Group		
search	†0.11	ļ			
er Exploration	10.38	+D.01	Resco	0.40	–0 0 <u>2</u>
neer Concrete	<b>†1.53</b>	+0.01	Sage Holdings	1 60	
haer Concrete kitt & Colman Sieigh	12.60	+0.01	SAPPI	12.85	-0.05
· Sieign i	10.66			5.73	
	20.25	+0.02	SA Breweries	1.35	-0.03
rgos Exploration	-0.42	+0.01	Tiger Oats and N. Mlg.	12.40	- 02
mas Nat. Trans	†1.82 †1.85		Unisec		-0 01
ths (\$)	†1.85 †0.80			1.34	
tons	†2.Dã	÷0.06	Securities Rand	U.S.80	).68?
stern Mining (50c)	11.61	-0.01			
	,		(wracomer of	417.0	,

NOTES: Overegas prices exclude \$ premium. Belgian dividends are after withholding tax.

• DM50 denom, unless otherwise stated. • Ptas 500 denom, unless otherwise stated. • Kr. 100 denom, unless otherwise stated. • Ftas 500 denom, unless otherwise stated. • Ftas 50 denom, unless otherwise stated. • Ptac 50 denom, unless otherwise denomined deviated alter scrip state. • Ptaces. • Gross div. • A Assumed deviated alter scrip and/or rights issue. • After local taxes, the first tax first in France, including United the Plance. • After local taxes, the first tax first indicated div. • Unofficial trading • Manority bulgers only. • A pending. • Asked • Bid. • Traded. • Seller. • Assumed. • Ar Ex rights. • Ad Ex devidend. • Ac Ex scrip issue • As Ex all. • A Interim since increased,

W	ALI	. STR	E
NEV	V Y	ORK	
197 High	8-79 Low	Stock	Fe 1
59 52 24: <sub>6</sub> 45: <sub>9</sub>	25 15% 154 30½	Abbott Labs	
813a 8754 84	2212	Airproducts Aican Aiuminium Aicas	25
90% 44%	1414 1538 2818	Alleg, Ludium; Allegheny Power Affled Chemical	16
977a 381a 65		Allied Stores Allis Chaimers AMAX	21 50 50
551g.	997g	Amerada Ness Amer. Airlines	28
581a 621a	844	Amer. Brands Amer. Brando'st. Amer. Can	49 36 36
381g 36 254g	201 <sub>8</sub>	Amer. Cyanerhidi Amer. Dist. Tel Amer. Elect. Pow	25 24 21
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## 2551a | Bankers Tr. N.Y. | 25-14 |
## 2551 | Barter Oil | 26-12 |
## 2561 | Baster Travence | 36-14 |
## 2562 | Beatrice Food | 22-16 |
## 2562 | Baster Travence | 22-16 |
# | Seatrice Food. | 2256 | Boot'n Dick'nson | 3558 | Seath Howell | 1576 | Sendox | 38 | Benguet Cona 'B | 5518 | Belhichem Steel | 8213 | Bosing | 5619 | Bosing | 5118 | Bosing Cascade | 3118 | Borig Warner | 2812 | Branuff Int. | 1114 | Brascan 'A | 3418 | Seate Myers | 3418 281s Bristol Myers 341s

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5. Burlington Nthn. 381s

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147s Canadian Pacific 9

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451s Carrier Hawley 521s

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4514 Honeywell 612
17 Hosp-Corp. Amer 28
20 Houston Nat, Gas 2612
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1034 Hutten (E.F.) 2534
1114 Ingersoll Rand 4914
5556 Inland Steel 5512
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321a UtdTechnologies 363,
171a UV Industries ... 141,
161a Wagreen ... 263,
173a Wallace Marray ... 21,
291a Warner-Commo ... 45
Warner-Lambert 24
171a Waste-Marray ... 21,
171a Waste-Marray ... 27
2414 Wells-Fargo ... 27
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2813 Signoid Corp. 324
2814 Shell Transport 1012
2814 Southern Cal. Ed. 2714
2814 Southern Nat Res 353
2836 Southern Nat Res 353
2836 Southern Nat Res 353
2836 Southern Pacific 283
2814 Southern Rail 361
2814 Southern Rail 361 253e 197a 29.00 41 1714 1124 1434 223e 261 261 261 8114 5.12 31 32<sup>3</sup>4 3? 14<sup>1</sup>4 19<sup>3</sup>2 83<sup>1</sup>4 19<sup>3</sup>8 83<sup>1</sup>4 1117<sup>-</sup>6 32<sup>5</sup>3 26<sup>1</sup>8 18<sup>3</sup>1 82<sup>1</sup>4 445a | Southern Railw'y| 5014

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Snia Viscosa. | 8214 | 6714 | Ford Motor Can. | 685g | 391g | 255g | Genstar. | 387g | 155g | 91g | Glant'yel' withit's | 12 | 405g | 26 | 407g | 405g | 405g | 405g | 405g | 405g | 407g | 475g | 475 2018 | 1038 | Imperial Oil | 2018 | 2248 | 2248 | 3160 | 2248 | 1658 | 814 | Indaal | 144 | 12 | 968 | Infand Nat. Gas. | 1158 | 1318 | Intrip.v. Pipe Line | 1714 | 1316 | Intrip.v. Pipe Line | 1714 | 1315 | Intrip.v. Pipe Line | 1714 | 1315 | Intrip.v. Pipe Line | 1714 | 1316 | Intrip.v. Pipe Line | 1714 | 1314 | Intrip.v. Pipe Line | 1814 | 1315 | Intrip.v. Pipe Line | 1814 | 1315 | Intrip.v. Pipe Line | 1314 | 1315 | Intrip.v. Pipe Line | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 | 1316 |

201s - Wevertneuser... 281s 172s Whirlpool....... 177s 162s White Con. Ind... 20 142s William Co.... 183s 215s Wiscowsis Elect... 262s

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| Price | - or |

INTERNATIONAL BONDS

# Speed draws the U.S. borrower

almost \$400m of new U.S. offerings scheduled last week. When the latest \$50m issue for the lates Newfoundland Province is in- 1987, carrying a 104 per cent rowers completely dominate the General Telephone and Eleclists of new issues in the dollar tronics, and PepsiCo have all

U.S. corporations have tended to disregard the Eurobond mar- also just scheduled a \$50m ket for their dollar needs in bond, due 1984, with a 10 per recent years, presumably be- cent coupon. Dean Witter Intercause the New York bond mar- national, the manager, indithem better. What is clear from the last few weeks is that the Eurobond market, free from the protracted offering procedures stipulated by the Securities and Exchange Commission, comes into its own when capital raising operations have to be mounted quickly.

This is particularly brought out when bond markets encounter fleeting periods in which conditions are favourable for launching bonds, as happened earlier this month when U.S. interest rates briefly sub-

The list of new offerings last week also provided evidence the Eurobond market does not Eurodollar interbank rate, offer a cheaper source of bor- Arguably, this is a move which rowing than New York, some will make this floater even more lesser-rated U.S. corporations of a money market instrument

issued Eurobonds.

Portland General Electric has 'appropriate discount."

Chemical, has mounted a remains \$200m 15-year issue. A 95 per suggest. cent coupon was set with a pricing of 991 to yield 9.69 per cent, but the issue was moving somewhat slowly in the primary market. It was reportedly available in primary transactions at less 17 12, against the full seli-ing group re-allowance of less

The other big operation involves \$100m of 15-year floating rate notes from Citicorp, and contains several new features. The margin will be point over the three-month

The current rush of U.S. the dollar, central banks may Newfoundation Frovince is incoupon. In recent days, Gould, corporate offerings, according conceivably introduce restraints
rowers completely dominate the General Telephone and Elector analysts, may also reflect on the Eurocurrency market. their private expectations about backed with controls to limit U.S. interest rates.

While U.S. rates are expected to peak later this year, American inflationary pressures bond may mean a protracted period retreat slowly last week, with of high interest rates. The rise prices losing up to 1/2 point ket has been thought to serve cates the pricing will be at an in energy prices in the wake of or more. the Iranian disruption rein-A much better-known name forces such expectations, parti- the market's rally which had among Europe's investors. Dow cularly if the U.S. economy briefly - for no more than eight resilient, analysts working days - produced an

> Thus, American companies ditions for new issues. The seem to view Eurobond flota-tions as a reasonable proposi-weakness was the recent weight tion, despite a current straight of new flotations, leaving what dollar yield structure shifting analysts described as a "vast" well into the 10 per cent area. amount of undigested paper. Significantly, some recent Since the Hudson's Bay and Eurobonds from U.S. companies New Brunswick issues, at the contain provisions for very early calls of the issues, a useful "insurance" technique for retiring the offering if interest rates subside rapidly during their offering prices.

> One controversial explanation logs had aftermarket returns of for the American eagerness to 10 per cent or more. For infloat bonds which was being stance, the \$50m GTE offering tentatively aired in Europe last from Bank of America, bearing week was that U.S. corporate 91 per cent and priced at 991.

AMERICAN corporations are may find the offshore bond net-than usual, as FRNs are usually treasurers might have one eye was trading at 97?-98; to yield back in the Eurodollar bond work gives a useful pricing linked to longer-term dollar on the possibility of official over 10 per cent, market in full force, with advantage.

The Deutsche Mark interpretational The Deutsche Mark interpretation on the interpretation of the deposit rates.

secondary Eurodoliar

market continued to

This more than wiped out by

appearance of favourable con-

end of January, reopened the

straight dollar market, there has

been a total of nine new issues

all of which now stand below

Six of the latest bond offer-

national market remained de-moralised, with net losses last Some analysts speculate that, week ranging to ? point. Expec-tations are now widespread that. in any future heavy attack on in the wake of the Bundesbank's tighter monetary stand, coupons for prime foreign issues will be the outflow of capital from the at between 6; and 7 per cent later this year.

BY JOHN EVANS

Reflecting deteriorating con-ditions, Westdeutsche Landesbank raised the coupon on the DM 100m eight-year CNT offering to 6; per cent from 6, and indicated a pricing of 99 to yield 6.41 per cent. Earlier, the coupon on the Bank of Tokyo DM 50m seven-year notes was raised 1-point to 6 per cent. with par pricing.

The current DM 950m issue calendar looks vulnerable, but Dresdner Bank is introducing a DM 150m 10-year bond Megal Finance Company with a 63\_per cent coupon.

This week should see a DM 100m seven-year bond for Argentina's Banco Nacional de Desarrollo. Dealers expect a 71 per cent coupon from the managers. Westdeutsche

The next French franc Eurobond is expected shortly for the French oil company, Total. The amount should FFr 150m, and manager Paribas.

The funding regulations have

BY MARY CAMPBELL

U.S. BONDS

### Lead manager Maturity U.S. DOLLARS BNP & ethers 5.58\* Baring Brothers Bank of America Int. 25 50 150 Rediand Finance NV GTE Finance NV First Boston Corp. & others 9.96 15 9. 100 1999 First Boston Corp. ±+†ElB & others Nikko, Schroder Wage 10.12 €Honda Salomon Bros. European Banking Co., tttProv. of Ontario 7.83 Dow Chemical Deutsche 9.69 Dean Witter Int. Portland Gen. Elec. 1987 1<del>994</del> 12.28 CCF Prov. of Newfoundland Société Générale 1984 1994 †Banco Urquijo Crédit Suisse First Boston. 6,000 †Citicorp D-MARKS WestLB CNT (g'teed France) Dresdner Bank Megal Finance 1989 6.29 Deutsche Bank Akzo n.a. SWISS FRANCS 419 100 Banque Gutzwiller, 1929 п.а. †Credit Pop. d'Algerie Kurz, Bungener Crédit Suisse <u> 4.550</u> 3. 100 1704 Sanque Gutzwiller, Norges Kommunalbank 3 Kurz, Bungener (g'teed Norway) 3.426 Banque Gutzwiller. ‡Norges Kommunalbank (g'teed Norway) LJRS TRenault Philippines 1991 Swiss Bank Corporation **GUILDERS** 99 Algemena Bank Nederland 8.38 Norway 1984 LUXEMBOURG FRANCS Kredietbank Lux. ‡Copenhagen Tel. Co. KUWAITI DINARS KFTCIC: Merrill Lynch 1987/91 CESP (g'teed Brazil)

CURRENT INTERNATIONAL BOND ISSUES

BY STEWART FLEMING

# Waiting on the sidelines for less uncertain trends

cent of new lending. Even big Japanese banks, which THE CREDIT markets have noted but not acted upon, with of the economy is now being traded uneasily at the lower levels established earlier in the month with prices broadly unchanged last week in very light trading.
In the money markets, short-

term interest rates were virtually unchanged in most sectors and although the weekly average Federal funds rate moved up a notch this is generally seen as a reflection of seasonal factors in the Fed's operations. The central bank still appears to be holding monetary policy steady, aiming at a Federal funds target rate of

jump in both M1 and M2 after four months of stagnation was

the markets deciding that questioned more widely in the further evidence would be wake of the publication of needed to decide whether there modest rates of gain for indushas been a change in the trend trial production and personal

tors have left the longer term. This is the first real setback bond markets unsettled with in the housing market for investors continuing to be reluc- almost a year. tant to enter into new commitments.

of increase in wholesale prices in January has sparked off not be fully accounted for in projections from Mr. Alan the seasonal adjustments and the personal income data is others. The consumer price index could rise by about 13 per in personal taxation. about 10 per cent.

Even the publication of cent in the first quarier of the So with the market still figures showing that for the year and 12 per cent in the first afraid that another general first time this year the narrow six months. This week, the increase in oil prices could be a first time this year the narrow six months. This week, the increase in oil prices could be sent to the horizon and with it the money supply measures have January consumer price index on the horizon and with it the risen sharply, did nothing to will be published and a double disturb the calm. The near \$3bn digit annual rate of increase is will be published and a double prospect of both higher inflation

expected. But the underlying strength on the sidelines.

income in January and a 20 per of the monetary aggregates. income in January and a 20 per Conflicting economic indica-

The problem with interpreting the figures is that seasonal The 15.6 per cent annual rate factors, in particular the bad weather in the midwest, may

> and slower economic growth, investors are once again waiting

> > Sept for a sept for a

Ind James

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### JAPANESE LENDING

# Problems of funding start to ease

BANKERS who regarded the the international money markets Japanese challenge as a major late last year. This was in factor in last year's precipitous one sense surprising because fall in lending margins doubt- Japanese banks' borrowing from less heaved a sigh of relief last other banks round the world week at reports that the pace of has fallen sharply since 1975

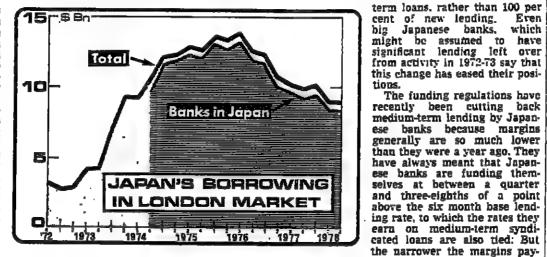
print suggests that by normal banks). definitions it is remaining stable or increasing slightly-prospective large scale lending to China borrowing even at short on commercial terms has been maturities fell back only split out of the Japanese esti-slightly. Moreover, regulations mates on the grounds that imposed on Japanese banks by China is a special case. But this the Japanese authorities when does not alter the fact that the they were allowed to resume Japanese are no longer expected medium-term lending in 1977 to be a force pushing down greatly increased Japanese spreads at least for prime demands for funds at the longer

is that liquidity is expected to he much tighter this year they operated last year, because of the cutback in Japanese banks were required central bank intervention to to match new medium-term for long-term funds support the dollar. But it is lending with deposits which November to December. the technical factors which have were not due to mature for at This pressure—felt esp

their lending is falling.

On a net basis (that is, borrowing met of deposits with other However, although net bor-

rowing declined sharply, gross -and very much thinner-end A fundamental reason for this of the money market. Under the regulations, as



dates resulted in a scrimmage regulations in two main ways for long-term funds last in order to prevent similar November to December.

This pressure—felt especially banks are now required to rehad the most immediate effect. least a year and a day. The in the international certificate port themselves matched each The Japanese banks' need to fact that they had to meet the of deposit market—has now month; second, they have to And the Japanese match at least 60 per cent of

draw in medium-term deposits matching requirements only on eased. And the Japanese match at least 50 per cent of imposed considerable strains on occasional annual reporting authorities have changed the the total outstanding medium-

95.38 8.61 95.62 8.64

Cedel 531.5 337.2

223.5 179.2

NOTICE

able by the borrower, the less

attractive such loans have

become for the Japanese banks.

And for prime quality bor-rowers the profit margin is now



# Österreichische Kontrollbank Aktiengesellschaft

U.S. \$50,000,000 Guaranteed Floating Rate Notes 1988 Extendible at the Noteholder's option to 1993 Guaranteed by the Republic of Austria

> PROPOSED CASH PAYMENT in respect of each U.S. \$1,000 Note

Under Austrian Law prevailing on the date of issue of the above Notes the guarantee of the Republic of Austria of the Notes would have ceased to be effective in respect of any portion of the interest payable on the Notes in excess of the maximum interest rate mentioned in Condition -I(D) of the Notes (12.175 per cent. per annum for the Notes).

In order to protect Noteholders against this eventuality, Österreichische Kontrollbank Aktiengesellschaft ("OKB") included in the Terms and Conditions of the Notes a mandatory redemption Condition whereby, if the Rate of Interest exceeded 12.175 per cent per annum, the Notes would be redeemed at the following percentages of their principal amount if redeemed in:-

May 1979......101 May 1980......101 November 1979.....101½ November 1980.....100½ May 1981 and thereafter at par.

The Austrian Export Financing Promotion Act (the "Act") has been amended recently and provides inter alia for all guarantees of the Republic of Austria issued under the Act to remain in full force regardless of the rate of interest payable. Therefore Noteholders no longer require the protection of the mandatory redemption Condition and OKB proposes to Noteholders that Condition 4(D) of the Notes be deleted and is prepared to offer Noteholders a cash payment for this modification as follows:-

- if the Rate of Interest for the next Interest Period determined on 12th April, 1979 does not exceed 12.175 per cent. per annum U.S.\$5 for each U.S.\$1,000 Note held; or
- if the Rate of Interest for the next Interest Period determined on 12th April, 1979 does exceed 12.175 per cent. per annum U.S.\$20 for each U.S.\$1,000 Note held.

If the Resolution set out below is passed at the Meeting hereby convened, OkB, the Republic of Austria and the Trustee will immediately enter into the Supplemental Trust Deed, which provides for payment to each Noteholder (whether present or represented at the Meeting or not, and whether voting in favour of or against the Resolution or abstaining) of the relevant sum referred to above for each Note held, such payment falling due on

19th February, 1979

18th April.1979 and being made in accordance with Condition 5 of the Notes as if it were a payment of principal. The Supplemental Trust Deed provides for the deletion of Condition 4(D) from the Terms and Conditions of the Notes and makes various consequential amendments to the Trust Deed constituting the Notes and the Notes them-selves. Copies of the Supplemental Trust Deed to be produced at the Meeting will be available for inspection at the offices of OKB, the Trustee, the Principal Paying Agent and the specified offices of each of the Paying Agents.

Noteholders should note that, in view of the quorum requirements (in the case of the Meeting more than 50 per cent. of the outstanding Notes and, in the case of any adjournment, at least 25 per cent. of the outstanding Notes), neither the Meeting nor any adjournment will be able to proceed to business unless the relevant quorum is present or represented.

Noteholders may attend and vote in person or by proxy. Noteholders attending the Meeting must bring either their Notes or a voting certificate in respect thereof. Notes may be deposited with Paying Agents for the Notes for the purpose of obtaining voting certificates or appointing proxies until 48 hours before the time fixed for the Meeting, but not thereafter.

Notice is hereby given that a Meeting of the holders of the above Notes will take place at European Banking Company Limited, 150 Leadenhall Street, London EC3 at 3 p.m. on Wednesday, 14th March, 1979 for the purpose of considering and, if thought fit, passing the Resolution set out below which will be proposed as an Extraordinary Resolution.

**EXTRAORDINARY RESOLUTION** That this Meeting of the holders of the

U.S. \$50,000,000 Guaranteed Floating Rate Notes 1988 Extendible at the Noteholder's option to 1993 of Österreichische Kontrollbank Aktiengesellschaft ("the Bank") hereby sanctions the proposal by the Bank for the modification of the rights of the Noteholders to be effected by the execution of the Supplemental Trust Deed produced to this Meeting and signed for the purposes of identification by the Chairman and authorises the Trustee to execute the same and to concur in and execute and do all such other acts and things as may be necessary to give effect hereto.

Österreichische Kontrollbank Aktiengesellschaft

### FT INTERNATIONAL BOND SERVICE

TEN STRAIGHTS

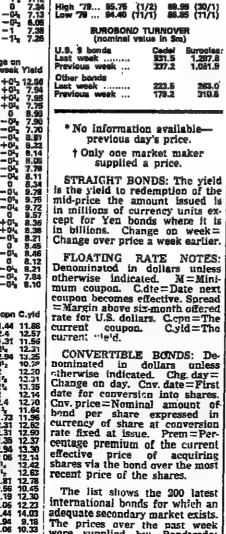
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Auttralia 6 45 82	- 1元	1 8id Offer day week Yield 94's 94's 0 -0's 10.17 95's 96 0 -0's 9.81
STRAIGHTS Aga Airt, 94, 88 Australia 6.45 83 Australia 91, 93	76	95's 96's -0's -1's 9.88
Aga Akt, 91, 88 Australio 91, 93 Australio 91, 93 CECA 91, 84, 93 CECA 91, 84, 89 CNT 9 93 Caneda 91, 98 Canadar 81, 83 Dominion Bridge 9 86 Elis 91, 98 Export Dv. Cpn. 9.85 81 Export Dv. Cpn. 9.85	. 50	20's 20's V - U4 3.00
CECA 91 64-99	. <u>50</u>	951, 961, -01, -01, 9.82
CNT 9 93	70	94 941, -01, -01, 9.75 971, 98 +01, -01, 9.83
Caneda 9 83	. 400	971, 98 +04 -04 9.83 964 967 0 -1 9.87
Canadar St. 83	. 430 70	94 945 -04 -05 10.18
Dominion Bridge 9 86	25	94 944 -04 -04 10.18 94 944 -04 -04 10.10
EIB 94 98	125	#6 #67 +O4 +O2 9.89
Export Dv. Con. 9.85 84	150	997, 1004, 0 -04, 10.05
Eksportfinant 9 86	. 50	
Finland 8% 83	. 100	96 96 +0 -0 10.03
Finland 9 88	100	34% 33% +0% -0% 10.08
Hospital 0/8 9 93	. 100	974 974 -04 -03 10.00 964 974 -04 0 9.85
Ital Finance 95, 90	30	93 93 0 -0 10.74
J C. Penney 81- 83	100	961. DELDLDL 0.76
NZ Dev. Fin. 84 R3	20	303L 903L OL OL 10 OM
NZ Dev. Fin. 84 85	20	93 93 0 -0 9.82
Nat. West 9 86	. 78	96 97 -04 -04 9.62
Nawtoundland Pt 90	50 25	851, 961, -01, -11, 9.84
Nors: Hudeo 01, 04	23	951, 87 -01, -01, 9.62 851, 964, -02, -11, 9.84 941, 951, -04, -01, 9.50 941, 851, -01, -03, 9.90
Norway 7 - 93	50 250 150	92's 93's -0's -0's 10.01
Norsyay 81 83	150	961, 97 +01, -01, 9.91
Nonvay 9% 84	150	89", 100", +0", -0", 8.95
Occidental 8% R5 .	75	821, 921 -04 0 10.57
On: Hydro 81, 85	125 50	931, 93% -01, -01, 9.95
Nat. West 9 86 Navioundland 91, 90 Navioundland 91, 92 85 Norsk Hvitro 94, 94 Norway 71, 23 Norway 94, 84 Occidental 51, 85 On: Hvitro 81, 85 Outlet Hvitro 91, 93 Sweden 94, 98	50 125	32', 33', -0', -0', 10.01 98', 7 +0', -0', -0', 3.91 89', 100', +0', -0', 8.95 82', 52', -0', 0 10.57 33', 53', -0', -0', 9.95 84', 55', -0', -0', 9.95 84', 55', -0', -0', 9.96
	773	841, 961, -01, -11, 10.07 961, 951, 0 -01, 9.69
UK 8" 23	150	931 941 - 11 - 12 9.89
DEUTSCHE MARK STRAIGHTS	la mond	Change on
	199000	8id Offer day week Yield 87's 96's 0 0 5.84 95's 95's -0's -0's 7.15
Argentina 61, 88	150	97's 98's 0 0 5.84 95's 95's -0's -0's 7.15
Australia 6 88	250	991, 991, +01, -01, 6.06
Austria 54 90	150	91', 92', +0', -0', 6.74
Bo Fet Alance 71 5-	150 100	981 981 +01 -01 5.94
American Et, Int. 51, 87 Argentina 61, 88 Australia 6 88 Australia 5 88 General 71, 87 GEOA 6 88 General 71, 87 GEOA 6 88 Ch. Manhtin. 0/5 6 80 Commerchank XW 31 Commerchank	150	37', 38', -0', -0', 7.15  95', 98', -0', -0', 6.06  91', 92', +0', -0', 6.06  91', 92', +0', -0', 6.74  98', 98', +0', -0', 5.94  95', 96', 0 -0', 7.18  96', 98', -0', 0 6.49  97', 97', +0', -0', 6.38  99', 99', +0', -0', 6.38  39', 99', +0', -0', 6.53  81', 81', 0 -0', 6.15  90', 91', -0', -0', 6.51  90', 91', -0', -0', 6.53  90', 97', -0', -0', 6.53  96', 96', +0', -0', 6.53  96', 96', +0', -0', 6.53  98', 98', -0', -0', 6.53
CECA 5 SS	160	961. 961 01. 0 6.49
Canada 4% 83	160 600	97" 97" +0" -0" 5.38
Ch. Manhtin. 0/8 8 93	100	99 991, +01, -01, 6.07
Commorabank WW 313	100	991, 1001, +01, -01, 3.53
Commerceant Aw 35	100	874 874 0 -04 5.15
Council of Europe 64	100 75 100 130	97 973 -03 +03 651
Council of Europe 64	130	964 974 - 14 0 5.67
Denmark 94 85	100	96 961 <sub>2</sub> +01 <sub>6</sub> -01 <sub>4</sub> 6.53
Denmark 64: 89	100	96½ 96½ +0¼ +0½ 6.98
FIR 63. 91	300 200	065 07L ±01 ±05 6 89
Eurofima 65 89	100	98' 99' 0 +0' 6.66
Finland 6 83	150	100 4 100% +04 +05 5.87
Hitachi Ship. 5% 83	150 50 100	951, 951, 0 -01, 5,84 961, 971, +01, -01, 5,56 971, 981, +01, 0 7,43
IBJ 5 84Indonesia 7 84	100	
Yaha Cibi Al El. 98	100	974 30% TUT V 7.46
Mitauhishi Patra 51 85	100	99 991, -01, -07, 5.88
New Zealand 64 87	200	99" 100" -0" 0 6.23
Nippon Steel 54 85 .	100	9914 100 -012 +012 5 81
Nippon Tel. & T. 51-87	100	961, 967, +01, -01, 6.05
Nordic Inv. Bk. 64 86	400	97's 98's U +U's 0.04
Norges Komm. 0 50	150	071 977 ±01 ±01 5.50
IBJ 5 84 Indonesia 7 84 Kobo, City of 5½ 86 Mitsubishi Potro. 5½ 86 Nippon Steel 5½ 87 Nippon Tel. & T. 5½ 87. Nordec Inv. Bk. 6½ 86 Norges Komm. 6 80 Norges Komm. 6½ 89. Norwegn. Ind. 5k. 6 90 Occidental 6½ 90 OKB 6½ 88 Potroleo Brazil 7 88	175	962 953 0 -03 664
Occidental 64 90	150	954 964 0 -04 7.28
OKB 6-2 88 Petroleo Brazil 7 88 PK Banken 5-4 88	100	102 10001, -02 5.46
Petroleo Brazil 7 88	100	973 981 +01 -01 7.31
PK Banken 54 88	100 30	92 9217 -01 -01 6.91
Ricon 51, 83	30	$97^{1}_{4}$ $98^{1}_{4}$ $+ 0^{1}_{3}$ $0$ $7.43$ $97^{1}_{4}$ $98^{1}_{3}$ $-1$ $-2^{1}_{3}$ $6.04$ $99$ $99^{1}_{2}$ $-0^{1}_{3}$
Stated 6 88 UDS Group 5½ 83 . Union Bank-Finn 6½ 88 Voncaucia 6½ 90	150	947, 957, +07, -07, 6.68 967, 967, -07, -07, 6.62
UUS Group 54 83 .	62	96 <sup>1</sup> <sub>3</sub> 96 <sup>1</sup> <sub>2</sub> -0 <sup>1</sup> <sub>2</sub> -0 <sup>1</sup> <sub>4</sub> 6.62 94 <sup>1</sup> <sub>5</sub> 95 <sup>1</sup> <sub>2</sub> -0 <sup>1</sup> <sub>4</sub> -0 <sup>1</sup> <sub>5</sub> 7.20 93 <sup>1</sup> <sub>3</sub> 93 <sup>1</sup> <sub>5</sub> +0 <sup>1</sup> <sub>2</sub> -0 <sup>1</sup> <sub>5</sub> 7.36 95 <sup>2</sup> <sub>5</sub> -0 <sup>1</sup> <sub>5</sub> -0 <sup>1</sup> <sub>5</sub> 6.65
Venerusia El 00	150	931, 931, +01, -04, 7.36
World Bank 64 88	400	96" 97" 0 -0" 6.65
SWISS FRANC		Change on
STRAIGHTS !	ssued	Bid Offer day week Yighd 1041 <sub>2</sub> 105 0 0 4.61 1011 <sub>2</sub> 1015 <sub>1</sub> +01 <sub>2</sub> =01 <sub>2</sub> 3.37 1015 <sub>1</sub> 1021 <sub>2</sub> =01 <sub>4</sub> =01 <sub>4</sub> 3.83 1015 <sub>1</sub> 1021 <sub>2</sub> =01 <sub>4</sub> =01 <sub>4</sub> 3.83
Acesa 54 65	40	1011 1015 ±01 =02 2 27
Amer. cvp. Int. 3': 93	40	1015, 1071, -01, -01, 3.37
Acesa 514 88	700	993, 993, -02, -02, 3.54
	100	99 <sup>1</sup> , 99 <sup>1</sup> , -0 <sup>1</sup> , -0 <sup>1</sup> , 3.54 700 100 <sup>1</sup> , -0 <sup>1</sup> , +0 <sup>1</sup> , 4.23
Chase Manhattan 4 93	70	1043, 105 +04 +04 3.56
Chase Manhattan 4 33 Council of Europe 414	100	104 1041, 0 0 3.81
Osekameries 71, 07	80	1023, 1023, +04, -04, 3.53
BNDE 5 88 Denmark 4½ 90 Denmark-Mortgage 8k.	75	102 10212 0 -014 4.70
Denmark 44 90	100	1044 105 +04 -04 3.50
Denmark-Mortgage Sk. DB 41 02	80 t 100	1024 105 ±04 ±05 3.20
ErB 41, 93	20	103 1031 -01 -01 3.96
F L. Smidth 41, 89	25	100 $100^1$ , $-0^1$ , $+0^1$ , $4.23$ 100 $100^1$ , $105$ , $+0^1$ , $+0^1$ , $3.56$ 104 $104^1$ , $0$ 0 3.81 102 $102^1$ , $+0^1$ , $-0^1$ , $3.53$ 102 $102^1$ , $+0^1$ , $-0^1$ , $3.96$ 105 $105^1$ , $+0^1$ , $-0^1$ , $3.96$ 105 $105^1$ , $+0^1$ , $-0^1$ , $3.96$ 103 $103^1$ , $+0^1$ , $-$
CZB 41 93	<b>\$</b> 0	1021 1021 0 -01 4.25
GZB 41 93	700 ·	1041 1041 0 -05 4.09
CI Fin. NV 414 93	700	1041, 1041, -01, -01, 3.85
Malaysia 41, 90	80	997, 1001, +01, -01, 4.75
Manitoba 4 93	100	104% 105 +0% 0 3.56
Manitoba 4 93	70 '	1034 1034 +04 +04 3.58
Names Komm 17 CC	120	1051 1051 ±01 ±03 2 56
OKB 4 93	100	1031, 1031, -01, -01, 3.69
Not is 5 90	20	03 1045 +02 -01 4.52
Sufe 41, 93	30 .	1031, 104 -04 0 3 90
Sandvik 4 90	80 20 30 85	1032 104 +01 +04 3.59
sens 44, 88	15 †	103 104 +02, -04 4 04
voest Alpine 4: 93		104), 104), ±01, =04 3.58
	700	041 4041 101 01 400
Condition of Part 4 85	700 1 30 1	1043 1045 +05 -05 4.08
Vienna 4 93 Vienna 4 93 Vienna Bunk 41, 92	700 1 30 1 100 1 250 1	1043 1045 +05 -03 4.08
OKB 4 93 Dr. Not 13 5 90 Sund vit. 4 90 Sundvit. 4 90 Sens 44, 88 Voest-Alpine 41, 93 Voralberg Frait 4 93 Voend 4 93 Vorald Bunk 41, 93	700 1 30 1 100 1 250 1	1031, 1031, +01, +03, 4.07 1021, 1031, +01, +03, 4.07 1021, 1021, 0 -01, 4.09 1041, 1041, 0 -01, 4.09 1041, 1041, -01, -01, 4.75 1041, 1041, -01, -01, 4.75 1041, 105, +01, 0 3.56 1031, 1032, +01, +03, 2.68 991, 991, +01, 0 3.53 1061, 1051, +01, +01, 3.66 1031, 1041, +01, -01, 3.69 1031, 1041, +01, -01, 3.69 1031, 1041, +01, -01, 3.69 1031, 1041, +01, -01, 3.69 1031, 1041, +01, -01, 3.69 1031, 1041, +01, -01, 3.69 1031, 1041, +01, -01, 3.69 1041, 1041, +01, -01, 3.69 1041, 1041, +01, -01, 3.69 1041, 1041, +01, -01, 3.69 1041, 1041, +01, -01, 3.69 1041, 1041, +01, -01, 3.69 1041, 1041, +01, -01, 3.69 1041, 1041, +01, -01, 3.69 1041, 1041, +01, -01, 3.69 1041, 1041, +01, -01, 3.69 1041, 1041, +01, -01, 3.69 1041, 1041, +01, -01, 3.69 1041, 1041, +01, -01, 3.69

BFCE 6.4 90	30 10 10 10 40	94 9 94 9 96 9	6 0 6 0 9 0 74 –04 44 0	-04 -04 -05 -1	7.24 7.13 6.06 7.38 7.25
	128 used 128 188 30 118 30 118 30 22 250 250 250 250 250 250 250 250 250	Bid Off 1944 9 9 114 9 8 114 9 9 114 9 9 114 9 9 114 9 9 114 9 9 114 9 9 114 9	Charles - + 00 - 00 - 10 - 10 - 10 - 10 - 10 -	90 on 1 1 + 014 +	fleid
FLOATING RATE NOTES  Arab Intl. Bk. M6.5 83 BFG Fin. Co. M5.5 89 Bco. El Salvador M8 83 Bco. Nac. Argnt. M8 83 Bcnk Handlowy M8 68. Bank of Tokyo M51, 93 Banque Worms M54, 85 Bq. E. d'Alg. M8.375 84 Bq. E. d'Alg. M5.3 83 CCCE M5.25 98 CCCE M5.25 98 Credit National M51, 88 Gotabanken M8 88 Gotabanken M8 88 Liubljanska M7.75 85 Li	00110100000000000000000000000000000000	dd Offer 66 85-287-17-18-38-18-18-18-18-18-18-18-18-18-18-18-18-18	31/7 1* 12/7 1* 12/7 1* 12/7 1* 12/7 1* 12/7 1* 12/7 1* 18/4 1* 16/6 1* 19/8 1* 12/7 1* 12/7 1* 12/7 1* 12/7 1* 12/7 1* 12/7 1* 12/7 1* 12/7 1* 12/7 1* 12/6 12 18/7 12 22/6 12 18/4 10 19/7 12 22/6 12 18/4 10 19/7 12 22/6 12	cepn C 1.44 11.44 12.4 12.4 12.2 14. 12.2 14. 12.2 12.2	3.10 .yid 1.88 2.57 1.25

Norges Km. 8 86 LuxFr Renault 74 88 LuxFr Solvay Fin. 8 85 LuxFr Swedish 8k. 8 88 LuxFr	500 500 500	10.	7, 9, 57, 97 11, 101 14, 91	74 0	_ Ci	8.12 8.21 7.84 8.10	1
FLOATING RATE NOTES S	pread	Bid	Offer	C.dte	C.opr	C.yld	9
Arab Intl. 8k. M6.5 83 BFG Fin. Co. M5.5 89 Bco. El Salvador M8 83	아 14 아	96 984 974 994	987 981	31/7 12/7 12/4	11.44 12.4 11.31	12.57 11.56	C
Bco. Nac. Argnt. M8 83 Benk Handlowy M8 88 Bank of Tokyo M51 <sub>2</sub> 93 Banque Worms M51 <sub>6</sub> 85	. 14 04 04	971, 971, 981,	97	21/7 25/11 18/4 16/6	12.94 101 <sub>2</sub> 12	12.20	100
Bq. E. d'Alg. M8.375 84 Bq. E. d'Alg. M7.5 85 Bq. Indo et Suez M5½ Bq. I. Af. Occ. M6.5 83	04 04 04	95 <sup>1</sup> 2	977	2/5 25/7 12/7	11's 12's 12 12.4	13.35 12.14	9
CCCE M5.25 98 Ch. Man. O/S M5 <sup>2</sup> 93 Credit National M5 <sup>1</sup> 88 Gotabanken M6 88	0,* 0,* 0,*	97½ 97½ 96¼ 98¼	981, 981,	3/8 27/7 11/7 15/5	11½ 11.73 12.31 12.31	11.96 12.52	b C
Ind. Bk. Japan M5\285 Ljubljanska M7.75 85 LTCB Japan M5\285 Midland Intl M5\293	0% 1 0%		971 971 991	1/6 18/7 9/5	12.35 12.94 12.06	12.37 13.30 12.14	e
Nat. West. M54, 90 Nipp. Crdt. Bk. M5.5, 85 OKB M54, 88	01 <sub>4</sub> 07 <sub>4</sub>	98 <sup>1</sup> , 100 100 <sup>7</sup> ,	991, 1002, 1014,	18/4	121, 121, 12.81 10.56	10.45	r
Offshore Mining 86 Petro Mexicano 7½ 84 . Privredna Banka M2 86 Standard Chrt. M5 5 90	014 014 014		981 981 961	22/6	12.19 12.06 13.44 8.94	12.30 12.23 14.03 9.18	ii a
Sundsvallsbekn, M6 85	014	974	97%		10.06	10.33	W
	date	Cnv. price 628	Bid		Chg. day +05	Prem . 14.45	E
Baker Int. Fin. 5½ 93 Boots 6% 93 Coca-Cola Bostling 6%	1/79 2/79	34 · 2.16	1103½ 89°;	104	+012	4.52 -3.91	B

Standard Chrt. M5 5 90	04	971,	97%	10/2	8,94	9.18	3
Sundavallaboko, M6 85	014	975	97%	4/4	10.06	10.33	Н
							iı
		Cnv.			Chg.		i
BONDS	date	price	Bid	Offer	day	Prem	١i
Asics 5% 93	9/78	<b>628</b>	102%	10312	+05	14.45	16
Baker Int. Fin. 51, 93	1/79	34	†103 <u>'</u> -	104	+012	4.52	lì
Boots 64 93 62	2/78	2.15	89,3	90'2	+014	-3.91	li
Ito-Yokado 54 93	6/78	1473	119%	1201	-01e +1년	20.96	[ }
Novo Industri 7 89	4/79	259	891,	91	מׁ מֹ	10.16	ĺ
Novo Industri 7 89 Texas Int. Air. 72 93	4/79	14.5	†89 T	8917	0	10.14	
Thorn Int. Fig. 7 881	1/78	3.67		984	+0.		Į
Tyco Int. Fin. 85 88 Tyco Int. Fin. 5 84	3/76	21 61.5	1100	1007	+0~ 1	13.80	Į
Asahi Optical 312 DM1	2/78	582		98,		5.91	8
Cesio Cp. 31- 85 DM7		8-71			+04		ŀ
Izumiya 31 <sub>2</sub> 86 DM1	0/78	939	907,	917,	01-	2.87	! 5
Jusco 312 86 DM	1/79	1270			+04		ļπ
Kansaj Elec. 4 84 DM	4/79	135 612			÷02, .		- ا
Konishiroku 3½ 85 DM : Marudai Food 3½ DM		1033			+04		Ιī
Murata M. 312 86 DM 1		354	97	98	-14	-4.15	7
Nipp. Air. 3.5 88 DM13	2/78	508			-04		7
Nippon Shinpan 33 DM	8/78	738			+05		Ċ
Nippon Yan. 31, 85 DM Nissan Diesl. 31, 86 DM	1//9 2/70	251 477				4.40	ď
Olymp. Opt. 31, 85 DM	2/79	703		100%		1,96	Č
Ricoh 31, 86 DM7	0/78	617				13.67	Ĭ
Sanyo Electric 312 DMT	1/78	295			+14 -		Ī
Solyu Stra. 34 86 DM		1275 487		10/5 954	—ტ₄ -	0.03	î
Sharo Cp. 31, 98 DM Stanley Elec. 31, DM1	מנו	623				16.49	N
Tokyo Elec. 32 87 DM	779	478	921,	9314	-14	1.78	-
Trio-Knwd, 31, 86 DM11	1/79	711	871,	381 <sub>2</sub>	+04	27.52	B
-						- ;	(C)
							- 14

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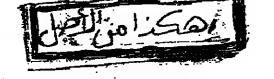


The list shows the 200 latest international bonds for which an idequate secondary market exists The prices over the past week were supplied by: Bondtrade Kredietbank NV: Credit Commer cial de France: Credit Lyonnais E. F. Hutton Services SARL Commerzhank AG: Deutsche Bank AG: Westdeutsche Landes bank Girozentrale: Banque Inter nationale Luxembourg; Krediet Bank Luxembourg: Algemene Bank Nederland NV: Pierson, Heldring and Pierson; Credit Suisse/Swiss Credit Bank; Union Bank of Switzerland: Akroyd and Smithers: Bankers Trust Inter-national: Banone Française de redit International: Citicory International Bank: Daiwa pany: Dillon Read Overseas Corporation; EBC; First Chicago; Goldman Sachs International

Corporation; Hambros Bank: IBJ International; Kidder Peabody International; Merrill Lynch; Aorgan Stanley International: Veshitt Thomson; Salomon Brothers International: Samuel iontagu and Co.: Scandinavian Rank: Strauss Turnbull and Co.; Sumitomo Finance International: S. G. Warburg and Co.; Wood Gundy.

Closing prices on February 16

NOTE: Anv enquiries may be addressed to Osterreichische Kontrollbank Aktiongesellschaft. Am Hof 4.A-1011 Vienna, telephone 6627-238 or 6627-309. or to European Banking Company Limited, 150 Leadenhall Street, London EC;V-4PP, telephone 638 3654.



James Finnay Unit Trest Respt. Lts.

10-14, West Nile Street, Giasgow. 041-204 1321

J. Finley Infermat 1 22.8 24.5 3.31

Accant, Units 27.1 27.1 3.51

J. Finlay Euro, Fin. 27.7 29.8 2.95

J. Finlay Euro, Fin. 27.7 29.8 2.95

J. Finlay Fol. In. 12. 28.1 36.2 5.01

Accant, Units 32.7 35.2 5.01

Prices on Fab. 14. Need dealing Feb. 21. 
 Subsect Funds
 67.6
 72.3
 -0.1
 560

 Brit. Inds. Fund
 63.8
 68.3
 -0.3
 5.71

 Grib. S. Ind.
 32.2
 35.7
 -0.1
 5.66

 Elect. S. Ind. Dev.
 35.0
 37.5
 -0.4
 4.80

 Allied Capital
 69.9
 74.8
 -0.2
 4.84

 Harnbur Fund
 107.9
 114.5
 -0.1
 4.98

 Harnbur Acc. Fd.
 122.1
 131.7
 -0.1
 4.98
 0306 5055 4627 -021 4.72 610 -0.21 4.72 75.64# +0 11 8.60 70.61 -0 11 7.15 40.84# -0.11 7.53 2854 47.84 57.3 +0.1 194 G. & A. Trust (a)(g) Arbuthnot Securities Ltd. (a)(c)

37. Queen St., London, EC4R 1BY.

37. Queen St., London, EC4R 1BY.

37. Queen St., London, EC4R 1BY.

38. Queen St., London, EC4R 1BY.

39. Queen St., London, EC4R 1BY.

30. Queen St., London, EC4R 1BY.

31. Queen St., London, EC4R 1BY.

32. Queen St., London, EC4R 1BY.

33. Queen St., London, EC4R 1BY.

34. Queen St., London, EC4R 1BY.

35. Queen St., London, EC4R 1BY.

36. Queen St., London, EC4R 1BY.

37. Queen St., London, EC4R 1BY.

38. Queen St., London, EC4R 1BY.

39. Queen St., London, EC4R 1BY.

30. Qu Arbuthnot Securities Ltd. (a)(c) Eastern & Ind. Fd. 24.5 11 42.7 43.6 Accumulation. 63.6 (65. Widewi. Uts.). 126.5 22.5 -0.3 117 Capital. 43.6 (65. Widewi. Uts.). 126.5 22.5 -0.3 117 Capital. 43.6 (65. Widewi. Uts.). 126.5 22.5 -0.3 117 Capital. 43.6 (65. 32.7 1.7 Capital. 43.6 (65. 32. 03-606 4433 Baring Brothers & Co., Ltd.\$ (a)(x) Guardina Royal Ex. Unit Mgrs. Ltd. Prices at Petrusy 13. Valuation commity Tuesday.

Albamy Life Assurance Co. Ltd.

31. Old Burlington St. W. J.

22. 4 0.1 215

31. Old Burlington St. W. J.

22. 4 0.1 215

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Prices at Petrusy 13. Valuation commity Tuesday.

Albamy Life Assurance C. Ltd.

31. Old Burlington St. W. J.

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Bridge Fund Managers (a)(c) iritannia Trust Management (a)(g) 01-628 601.1 154 5 +0.3 5.6 American 91.4 80.5 +0.11 2.5 Income 97.4 Income 97.4 

Charles Charles NR Function (C.) (14-04-127)

In Security Land (C.) (14-04-127)

In Se

INSURANCE BASE RATES

+Vanhrugh Guaranteed..... (Address shown under Imprance and Property Bond Table

| Managers | Ltg. | Lal(g)(Z) | Overseas Funds | Europe | Lagari | Mercusy Fund Managers Ltd.
30, Grestam St., EC2P 2E8.

Merr. Gen. Feb. 14 2019 216.9 443
Acc. Units Feb. 14 2019 216.9 343
Merr. Int. Feb. 14 2019 216.9 377
Acc. Units Feb. 14 75.3 801 377
Acc. Units Feb. 14 75.3 801 377
Acc. Units Feb. 14 75.3 801 518
Accm. Units Jan. 25 298.3 310.7 5.18 

Minster Fund Managers Ltd.

Minster Hse., Arthur St., EC4. 01-623 1050

Minster Feb. 12 36.1 38.11 6.61

Exempt Dec. 31 101.2 105.2 5.32 

061-2368521 Rothschild Asset Management (g)
72-80, Gatehouse Rd, Aylesbury. 0296-5941
N.C. Engity Fund. 1694 180.2 -0.3 3.75
N.C. Engity Res. 15 - 1173 1247 +9.6 276
N.C. Intl. Fd. (loc.) 187 534 +0.2 1.74
N.C. Intl. Fd. (loc.) 187 93.4 +0.2 1.74
N.C. Smir Coys Fd. 162.7 173.1 -0.4 3.90 Metual Unit Trest Managers (a)(g)
15, Coptiell Are, EC2R 7BU.
01-60 4903
Muscal Sec. Par. 49 7 743 -0.3 6.90
Muscal Blue Citie 453 47.34 -0.3 6.90
Muscal High Yid. 55.0 47.94 -0.2 9.12 Mouse High Yiel | 550 | 59.2 | -0.2 | 9.12 | N.C. Smile Coys Fd. | 152.1 | -0.2 | -0.2 | 15.2 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 Royal Tst. Can. Fd. Mgrs. Ltd.
54, Jernyn Street, S.W.J. 01-629 8252
Capital Fd. 68.1 71.8 | 3.62
jecome Fd. 60.1 977 | 8.96
Prices at Feb. 13. Neal dealing Feb. 28. 

01-248 9111

76.9 + 0.8 4.32 68.4 - 0.1 5.49 93.3 + 0.1 5.14 36.5 + 0.1 5.14 36.5 + 0.1 5.20 61.5 + 0.1 2.33 68-73 Queen St., Edinburgh EH2 4NX Dealings to: 01-554 8899 or 031-226 7351. Save & Prosper Securities Ltd.9 Portodio Inv. Fd. 69.5 | 74.1 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 | 750 **INSURANCE** 

Equity & Law Life Ass. Soc. Ltd. 9

Grewth & Soc. Life Ass. Soc. Ltd.Y Weir Bank, Bray-on-Thames, Berls. D628-342

92.5 +0.5 3.69 79.1m +0.2 1.51 74.8 ..... 3.58 Target Tst. Mgrs. (Scotland) (a) (b) 19, Athol Crescera, Edin. 3. 031-229 8621 2
Target Amer. Eagle[262 28.2 + 0.2 1.97
Target Trustic 40.4 4.4 ... 6 26
Extra Income Fd. 57.2 61.5ss ... 10.81 Trades Union Unit Tst. Managers¥ 01-628 8011 53.1| ... .| 5.38 Practical layest Co. Lit. (y)(c) | Scristaires | 59 4 | 6.16 | +0.11 | 4.67 |
44, Bloomshury Sq., WC1A 2RA | 01-623 8893 |
Practical Feb. 14 | 15.1 | 160.3 | 4.99 |
Accum. Units | 277.9 | 231.1 | 4.99 |
Arcom. Units | 277.9 | 231.1 | 4.99 |
Arcom. Units | 277.9 | 231.1 | 4.99 |
Arcom. Units | 277.9 | 231.1 | 4.99 |
Arcom. Units | 277.9 | 231.1 | 4.99 |
Arcom. Units | 277.0 | 277.0 |
Arcom. Smaller Cos. | 280 |
Arcom. Units | 277.0 | 277.0 |
Arcom. Smaller Cos. | 280 |
Arcom. Units | 280.2 |
Arcom. Un Transatlantic and Gen. Secs. Co.V 1975. Ltd. (a) (z) (300) 86-441 J.K. Geth Dest. 19.4 20.9 5.65

J. Henry Schroder Wagg & Co. Ltd. P

120. Cheapside, E.C.2 100.240 3434

L. Capital Feb. 13 106.4 110.2 3.86

(Accum, Units) 129 9 134.6 106

(Accum, Units) 129.8 194.6 106

(Accum, Units) 207.8 297.8 105

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(Accum, Units) 128.6 115.2 436

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**PROPERTY** 

M & G Group# Three Gusys. Timer ! AmericanFd Bd.".... Convert. Deposis\*.....

Mirraret Lovestove Assurance

83 - 0.3 6 86 902 - 0.4 6 86 902 - 0.4 6 86 903 - 0.1 10 6 1 904 - 0.1 10 6 1 174 - 0.1 10 6 1 174 - 0.1 5 5 1 174 - 0.1 5 5 1 174 - 0.1 5 5 1 175 - 0.1 5 5 1 177 - 0.1 5 1 177 - 0.1 5 1 177 - 0.1 5 1 178 - 0.1 5 1 179 - 0.1 5 TSB Unit Trusts (y)

21, Chamy Was, Andower, Nants.

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(b) TSB General 44.6 63.88 -0.3 4.39

(b) Do. Accum 58.3 62.4 -0.3 4.39

(b) TSB Lincone 98.0 6.3 -0.5 8.72

TSB Lincone 62.3 66.3 -0.5 8.72

TSB Lostish 83 9.8 -0.1 2.66 Ûlster Bank♥ (a) Wielgr Growth Fund

Schröder Life Group¥ Scottish Widows' Group

Deposit Pers. | Weir Bank, Bray-on-Thames, Berks. | D628-34284 | MEL Pensions Lta. | Pension

| BLAST SAM | BRIDE SEARCH C.C.3 | Reput Exchange, C.C 

P. O. Sey 902, Edinburgh EH16 58U. 031-655 6000 Inv Pty Sry Feb. 16...107.8 107.8 Inv. Pty Server Feb. 16...101.1 106.9 Inv. Pty Server Feb. 16...101.5 106.9 Zey Ut. Acc. Feb. 7....137.5 143.4 Ex Ut. Inc. Feb. 7....130.2 915.8 Pag. Pen. Feb. 13....266.8 286.8 107.5 +1.0 — 101.5 +01 — 115.5 — Solar Life Assurance United 5911 10/12, Ely Place, London, EC1N 6TT. 01-242 2905

1867. 01-32 2905 1248. +0.5 = 1248. +0.5 = 11669. +0.5 = 1169. +0.5 =

| Col. |

Vanbrugh Pensions Limited (2) 

Welfare Insurance Co. Ltd.9 

Market Opportunities, c-o trish Young & Outhwaite, 127, Kenl St., Sydney
US\$1.Shares......| SUS1.48 [ ......] —
Net asset value November 24 

Britannia Tst. Mingryt., (CI) Ltd. 30, Bath St., St. Helier, Jersy. 0534 73114

0272 32241

Brown Shipley Tst. Co. (Jersey) Ltd. P.O. Box 583, St. Heller, Jersey. 0534 74777 Sting-Bnd Fd.(n)........(£9.% 9.97| ......| 13.00 Sutterfield Management Co. Ltd. ital International S.A.

Clive investments (Jersey) Ltd. Cornbill Ins. (Guernsey) Ltd. DWS Deutsche Ges. F. Wertpapiersp

Eurobond Holdings N.V.
Händelskade 24, Willemstad, Curacao Landon Agests: Intel. 15 Ehrictopher St., ECZ. 7el. 01-247 7243. Thesis 8014409. NAV per share Feb. 16, 5US21-50. F. & C. Mgmt. Ltd. Inv. Advisers Fidelity Mgmt. Research (Jersey) Ltd., Waterloo Hee, Don St., St. Heller, Jersey. 0534 27561

Park Hise. 16 Finishers Circus London EC2 Tel: 01-628 8131. TLX: 886100 | Per Net. 16 Findings Great Landon | L

G. T. Philippine Fd. ... \$1538 (2 10.75 - 0.25) --Gartzmbr invests. Ltd. Ldn. Agts. 2. St. Mray Asse. London. EC3. 01-283 3531 Sartzmare Fasel Mingt. (C.1.) Ltd. (av/h). 41, Broad St., St. Heller, Jersey ... 634-75741. Gift Franci, Jersey ... 191.0 96.0 sq. ... 13.125 Sartzmare Fasel Mingt. (E.1.) Ltd. (av/h). 1503 Butchlein, Hss., 10 Harczmart Rd. H. Anos HK. G. Par. U. Tst. ... 3,665 3,94628 -0383 2 50 Japan Fd. ... ... 3,865 3,94628 -0383 2 50 Japan Fd. ... ... \$10.000 J. 19.000 2 50 Japan Fd. ... ... \$10.000 J. 19.000 2 5550 J. 10.000 2 50 Japan Fd. ... ... \$10.000 J. 19.000 2 5550 J. 10.000 2 50 J. 10.000 2 

International Pacific Inv. Mgmt. Ltd.

| Cont Assets Cap | Cities | Cities | Cont Assets Cap | Cities | C Lloyds Bit. (C.1.) U/T Mgrs. P 0 Box 195, 5c, Hellier Jersey. Lloyes T.r. 0 sept. 156 do. March 156 Lloyds Trust Git. 1958 9.851 Meet declayer Petrony 21 10a Boulesurd Royal, Lucemburg NAV Feb 9 ...... \$U512 61

# Fore Street, EC2 01-586 7081 Schlesinger International Mng
Ess Ass. Sterling\* 151-98 52:00 324 41. La Moste St., St. Helier, Jersey.

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\$ A.0 L | 183 | 0.79 | 4.84 | 61h | fd | - - - - - - - - - - | 1.85 | 0.79 | 1.13 | 1.55 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1. Schroder Life Group 0705 27733 Enterprise House, Partsmouth, J. Harry Schroder Warg & Co. Ltd.

120, Chenpside, EC2. 01-588 4000
Cheng S Feb. 11 9151344 270
Actan Fd. Feb. 5 10:3015 19:40
Darting A; Feb. 10 12:40 275 218 40:55
Japan Fd. Feb. 5 10:3015 19:40:55
Japan Fd. Feb. 5 10:3015 19:40:55
Japan Fd. Feb. 5 10:3015 19:40:55
Japan Fd. Feb. 10 12:501 18:59 033

Sentry Assurance International Ltd. Sunnvest (Jarsey) Ltd. (x)
Queens Hise Don Rd. 5: Heller, Jr. 0534 27349
Amenican Ind To. ... (27.5) 7.701-0.06
Copper Ind. 1 ... (27.5) 7.701-0.06
Lap Index Te. ... (27.5) 11.29-0.06 

| High-Samuel & Co. (Guernsey) Ltd. | High-Samuel & Co. (Guernsey) Ltd. | High-Samuel | High-Samuel

30 Cerchara Street EC2 01-600-4555
Cov. Brit. Feb. 15 SUSS 57 -0001 5
Gr. St. SFd Jan. 35 SUSS 78 -0005
Gr. St. SFd Jan. 35 SUSS 78 -0005
Merr. Edd Feb. 7 (375)-44 10-53
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NOTES

Prices do not include 5 premium, except where indicated 5 and are it conte unless otherwise indicated. Yields 6 (shown in last column allow for all busine expenses, a Orience price, a United all expenses, to Today's prices, a Yield based on offer price a Estimated, g Proof, opening price in Orday's Starte premium invariance pillars is Starte premium invariance of UK taxes, g Periodic premium invariance pilars is Starte premium invariance in Orday and invariance in Orday and invariance processes agent's commission y Offered price includes all expenses of longiti for Joh managers. Premium characters of the last for realisted capital gains unless indicated by 6. 9 Generatory gross, a Suspended. • Yield before Jersey Last 1 Ex-subdivision. 

\*\*Dolly provided by Canada Based Capital Gains of Control Processing Control Based Capital Gains of Capital Based Capital Cap

ROMANS

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ROLLS-ROYCE 1975 Rolls-Royce Silver Shapow, Salance in Brewster Green with high press hade upnolistery, speed central, full service history, 33,000 miles, \$23,850 or £652 monthly.

1977 'S' Aston Martio VS Vanlage, finished of Cristel White with black hise interior, air cond. 5 useed manual cearnor radio Merco. I gener full service history. 6,000 miles £27,050 or \$570 monthly.

1978 Aston Martio VS Auto. marked in Olde Fooling Pewter with being hide upoldstery, air cond. radio-stereo, 15,000 miles. I uwder, service history, £19,950 or £518 monthly.

MERCEDES

1979 450 SEL, bushed in Magnetite Blue with Parchment velour, air condescript surroof, cruise control, radio scores, delurry mileage only, \$24.450

electric sunrout. Cross control radio scree. delutery mucage criy kee-day of \$535 mentally.

of \$535 mentally.

1978 17 450 55, Anished in Blue Grey metallic with parchment cloth unboil 1978 17 450 55, Anished in Blue Grey metallic with parchment cloth unboil stery. electric sunrout. Intelligible processing the second of the content service history. \$18,450 or \$480 manthly.

1979 280 55, Anished in Milan Brown with narchment cloth unboildery.

1979 280 55, Anished in Milan Brown with narchment cloth unboildery.

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1979 280 28. Antistice of the relative plants of the relative process of the relative plants of the relative plant

BMW 1978 'T' 633 CSI Manual, finished in Reseda metallic with being hide interior, air cond. electric suproof, assessmen door mirror, headlands wash wipe, 11,000 miles, full service history. £15.450 or £402 monthly.
1978 633 CSI Auto., Anished in Fiord Bloc metallic with blue velour interior, 1978 633 CSI Auto.

electric sourced, tinted plass, 6,000 miles, 1 dware, service history, \$13,430 or £402 monthly, hished in Black with orer cloth uphelstery, tinted plass, 6,000 miles, supolied by ourselves, \$6,750 or £175 monthly, 1978 323 , hoished in Cord Red with charcost cloth, tinted glass, radigit stereo, 4,000 miles, £7,495 or £194 monthly, 1978 17 320 Automatic, finished in Golf Yellow charcost cloth interior, 1978 17 320 Automatic, finished in Golf Yellow charcost cloth interior, 1978 17 320 Automatic, finished in Golf Yellow charcost cloth interior, 1978 17 320 Automatic, finished in Golf Yellow charcost cloth interior, 1978 17 320 Automatic, finished in Golf Yellow charcost cloth interior, 1978 17 320 Automatic, finished in Golf Yellow charcost cloth interior, 1978 17 320 Automatic, finished in Golf Yellow charcost cloth interior, 1978 17 320 Automatic, finished in Golf Yellow charcost cloth interior, 1978 17 320 Automatic, finished in Golf Yellow charcost cloth interior, 1978 17 320 Automatic, finished in Golf Yellow charcost cloth interior, 1978 17 320 Automatic, finished in Golf Yellow charcost cloth interior, 1978 17 320 Automatic, finished in Golf Yellow charcost cloth interior, 1978 17 320 Automatic, finished in Golf Yellow charcost cloth interior, 1978 17 320 Automatic, finished in Golf Yellow charcost cloth interior, 1978 17 320 Automatic, finished in Golf Yellow charcost cloth interior, 1978 17 320 Automatic, finished in Golf Yellow charcost cloth interior, 1978 17 320 Automatic, finished in Golf Yellow charcost cloth interior, 1978 17 320 Automatic, finished in Golf Yellow charcost cloth interior, 1978 17 320 Automatic, finished in Golf Yellow charcost cloth interior, 1978 17 320 Automatic, finished in Golf Yellow charcost cloth interior, 1978 17 320 Automatic, finished in Golf Yellow charcost cloth interior, 1978 17 320 Automatic, finished in Golf Yellow charcost cloth interior, 1978 17 320 Automatic, finished in Golf Yellow charcost cloth interior, 1978 17 320 Automatic, finished in Golf Yellow charcost c

monthly.

1973 633 CSi Auto., nnished in metallic Anthracite with beige hide aphobacy, electric sunroot, Mahle wheels, linted glass, electric windows, 10,000 miles, full service history £15.480 or £802 monthly.

1977 320 I, hinished in Verona Rea with charcoal cloth subolstery linted glass, 7,000 miles, service history £3.950 or £15.4 monthly.

1977 320 Manual, nnished in Reseda Green with beige cloth subolstery, 1977 320 Manual, nnished in Reseda Green with beige cloth subolstery, 1977 320 Manual, nnished in Reseda Green with beige cloth subolstery, 1977 320 Manual, nnished in Reseda Green with beige cloth subolstery, 1977 320 Manual, nnished in Reseda Green with beige cloth subolstery, 1977 320 Manual, nnished in Reseda Green with beige cloth subolstery.

PORSCHE

1979 928 Auto., holshed in metallic Silver with black hide with black and white check velour inlays, air cond., delivery mileage, 226,950 or 6706. mostily 17 928 Automatic, finished in Corper metallic with Cark intercer, 1978 'T 928 Automatic, finished in Corper metallic with Cark intercer, 1989 miles. Service history, 225,950 or 5674 monthly.

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1978 Formeri 308 GT4, finished in metallic Dark Blue with magnolia interior with blue velour inlays, air conditioning, wide wheels, radio, 7,000 miles, 1 goiner, sewice history, 515,450 or \$402 monthly.

1978 'T Ferrari 308 GT5, Silver Green with plaskin interior, timed glass, wide wheels, 1,500 miles, \$17,950 or \$456 monthly.

1977 'T Reg. Ferrari 308 GT4, finished in Silver with reg him marker, seeel sunroot, tinted glass, 12,000 miles, full history, \$13,836 or \$362.

menthly restrict the second of the second se

air conditioning, chrome wheels, third claim. 7.000 miles, service history. 210.450 or 5272 monthly. 1976 Japper XUS Abbo, finkbed in Sritish Racing Green with history. 21r conditioning, radio, 14.000 miles. I owner, but history. 510.528 of

2204 monthly. 1973 'T Ford Czerr 3000 Ghle Arte., enished in White with black cloth u-noistory, sunroal, tipted glass, 5,000 miles, 1 owner, service history.

S.695 or E148 monthly.

S.695 or E148 monthly.

1978 Ford Capri 2000 Ghis Manuel, Anished in Surnt Scampe, brown cieth, and Serv. rado. 3.000 miles, foll service history. 24-795 or E124 mentaly.

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New Dalmier Double Six finished in Old English White with Russet trim, Air-conditioned. List price 1977 Daimler Vanden Plas Double SIx finished in Metallic Blue with Beige bide. Fully equipped

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miles. 1730 manual. Metallic grey! beige velour. Metallic street, elec. windows. central locking, elec. windows. central locking. elec. windows. central locking. Apide wheels. radiotsterae. etc. 13.000 miles. £11,630, miles. £11,630, miles. £11,630, miles. £13,630 miles. £13,

miles, 211,650.

1878 5251 mannal, Fjord blue/
blue velour. Mobal s'rool, central
locking, liglass, Albina wheels,
radio/storce, etc. 800 miles.
1878 52521 manual, Polaris sliver/
black velour. E.ec. Stroot, windows
and door mirrors. Recare seals.
Mahle wheels, L.S. dll., t/glass,
log lamps, radio/storce, etc. Oct.
milesse.

log lamps, radio/stereo, etc. Oel. milesgo.
1978 9781 auto. Black/black
velour, Edats 5.000 miles. Mahir wheels, Eglass, twin spots, radio
1978 9281 auto. Figure to defibiue
velour. Reol sun roof. Alpina wheels, Eglass, F/M radio, 7,000 miles, Eq. 1978 17331, choice of two, Sunrool tiplass, alloy wheels, radio/stereo, low miles, Eg. 1979 1231, choice of two, Transport in the sunroof miles, Eg. 1979 1231, choice of two, Transport in the sunroof tiplass, alloy wheels, radio/stereo, low miles, from 17,898 1979 1220/8 auto. F.A.S. Fjord blackblue velour. Metal stroot.

bine'bine velour. Metal s'roof. 1788s. etc. 700 miles 1978 T and S 320/6. Choirs of 4 very low milesge cars. Good 5 poct's cattoms including auth, manual, P.A.S., etc., from £5,393.

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omerbive valour. Bloc. sup roof. allow wheels, sharen radio, stereo casette. 12 000 miles 1979 3505L. Motalite bluerbive cloth. Allow wheels, tiglass, radio/ stereo. Dol. milesoc. 1978 Series 3505L. White/bive cloth. Allow wheels, tiglass, radio/ stereo. 8,000 miles.

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1978 430 SEL Astrol aliver; blue velour lice, sun roof aliey wheels, radio verse, etc. Delivery mileago, f37 950.
1978 IT Regel) 450 SEL Astrol silver/blue leather. Air cond., etc., sucreof, cruise control, rev. country, resting lights Seckyr Mexico radiosteros. 8,000 miles.

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Financial Times Monday February 19 1979

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### UK TRADE FAIRS AND EXHIBITIONS

Intni. Swimming Pool and Allied Trades Exhn. (01-681 7055) (until Feb. 20)
International Men's and Boys' Wear Exhibition IMBEX (021-705 6707) (until Feb. 22) Current Photography at Work Exhibition (01-688 7788)

until Feb. 22)

The Energy Show (0822 4671) (until Feb. 25)

Feb. 24—Mar. 4. National Custom Car Show 1979 (01-686 7181)

Mar. 6—9 Powtech '79—International Powder Technology and Bulk Solids Exhibition (01-686 5741)

Mar. 6—17 Chelsea Antiques Fair (56 56069)

Mar. 10—18 Daily Mail Ideal Home Exhibition (01-353 4000)

Mar. 11—15 Autoquip '79 (01-235 7000)

Mar. 12—16 Labex Intal. (Lab., Diagnostic and Medical Inst. Exhibition) (021-705 6707)

Mar. 13—15 Computermarket '79 (01-935 4996)

Computermarket 79 (01-935 4996)

# OVERSEAS TRADE FAIRS AND

Current SEHMOD—Men's Fashion Show (until Fab. 20)
Feb. 20—25 Architectural Profile Systems Exhibition
Mar. 1—11 International Motor Show
Mar. 2—11 International Boat Show—HISWA
Mar. 2—11 Exhibition Mar. 3—11 ..... International ernational Tourism—Exchange — Exhibition (01-540-1101) Mar. 9—18 Primera 79—Internation Gift and Novelty
Exhibition

### BUSINESS AND MANAGEMENT CONFERENCES

Ctanfield School: Young Managers Course (0234 751122) (until Feb. 23) CEI- International Financial Management Seminar (022 471133) (until Feb. 23) Conference: The Euromarkets in 1979 LCCI: Opportunities for Consulting Engineers in the Middle East and North Africa (01-248 4444) Feb. 21—26 ..... National Association of Pension Funds: European Conference (01-681 2017) CCC: Export Finance and Credit (01-222 6362)
Institute of Chartered Accountants: Control of Feb. 25—Mar. 2... PM: Assessment Centre Design—for Selection and Management Development (029 383 344).

Feb. 25—Mar. 1... BTSC: Finance and Accounting for Management (04862 5444)

Feb. 26—Mar. 1... IPM: Job Evaluation (01-387 2844)

Feb. 26—28 CEL: World Factory France (01 288 4774)

—Mar. 1... —28 CEI: World Energy Economics (01-353 4774)
ESC: Suggestion Schemes (057282 2711)
Institute of Internal Auditors—UK: Computer—Audit Control and Security (0480 58050)
CCC: Minimising Liability in Trans-European Road Haulage (01-222 6362)
BCPA: The Secretary's Engineers (01-405 1023) BCPA: The Secretary's Environment (01405 1028) BCPA: Industrial Tribunals (01405 1028) Feb. 27

Institution of Civil Engineers: Telecommunications in the Future (01-839 3511)

Marchmount Conferences: Personal Tax Savings for Directors (01-491 7812) InComTee: Product Liability—Law and Practice in Britain and Abroad (9276 62677) CCC: The Contract of Employment (91-222 6362) Mobile Training: Company Taxation for Managers (01-242 3067) University of Bradford: Managing Technological

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Mar. 5

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Abacus: Successful Exporting—Can we learn from France and Germany (0604 881300)
Brunel Institute: Manpower Development for Capital Projects in the Third World

Capital Projects in the Third World (0895 56461) Mar, 6—7 ....... ASM: Cost Analysis and Financial Techniques for the Buyer (01-385 1992)

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Grosvenor House Hotel, W1

Whites Hotel, W2 Inn on the Park, W1

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Europa Rotel, W1

Hotel Russell WC1

Sackville Hotel Hove

Lombard Street, EC3

Piccadilly Hotel, W1

Hilton Hotel, W1

Cavendish Conference Centre

Royal Garden Hotel, W8 Waldorf Hotel, WC2 Waldorf Hotel, WC2

Great George Street, 5W1

Charing Cross Hotel, WC1

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it managed to weather the secondary banking crisis but Between 1974 and 1976 its balance sheet, which had riseu five-fold in the previous four years, shrank.

### Deposit base

From the beginning Western Trust was different from many of the other small fast-growing financial institutions of the early 1970s, since it built up its own public deposits base and relied less than most on the wholesale money markets. This was almost certainly its saving grace, since with roughly 80 per cent of its deposits coming from the public (two thirds of over two-year maturity) Western Trust was not too vulnerable if the money markets suddenly dried up as they did in 1974-75.

### NEWS ANALYSIS: WHY CANADA'S ROYAL BANK BI DS HIGH

# The lure of Britain's credit boom

THE Royal Bank of Canada's on an unsecured basis. Its planned acquisition of Western clientele tends to be down-Trust and Savings has surprised market from the average clear-many bankers. Why should ing bank customer, but judging Canada's largest bank, which has by the growth in its asset base been operating here since before World War I, suddenly its services. With the backing decide to buy a small West of Royal Bank of Canada, Country-consumer finance com- Wastern Trust plans to open 85 pany?

price (in "excess of years. £10.5m") is high, valuing the company at more than twice net asset value and 15 times the Royal Bank is getting a standing balances, which works company with loan balances of 292 per cent. For secured network of 15 offices. Canadian banks are more conservative than most and so it is fair to assume that the purchase was not a spur of the moment deci-

In fact the Royal Bank first talked to Western Trust back in 1972, but the secondary banking crisis soured the market and it was not until late last year that the two sides started talking

The Royal Bank had wanted to enter the market served by Western Trust—the unbanked section of the community—and the latter was finding that its existing parents, Philadelphia National Corporation and Corporation and Arbuthnot Latham, were not prepared to back its ambitious expansion plans.

Although Western Trust was first established in 1935 it did not really start to grow until the late 1960s, when, with the back-ing of Hambros and a consortium of City interests, it began to develop its consumer banking activities. Unlike many such small banking operations (it became a listed bank in 1974) was not completely unaffected.

Over the past couple of years its business has once again started to grow rapidly. From a loss of £0.2m in 1975-76, Western Trust made pre-tax profits of £1.7m in 1977-78 and could make about £2.5m this year. Much of its lending—the average loan is about £900—is

### FOREIGN OWNED UK FINANCE COMPANIES

	Offices		Assets	profits
			£m	£m
	. 38		100=	n.a.
	25		76	1.4*
	15		56	1.7
	67		36	0.8
	42		27	n.a.
100	18		20	n.a.
	61		18	7.1
	14		7	0.7
	NOE.	38 25 15 67 42 18 61	38 25 15 67 42 18 61	25 76 15 56 67 36 42 27 18 20 61 18

secured loan customers pay 2.2 per cent per month on the out-standing balances, which works time, and it is easy to see why out at a true rate of interest of it was prepared to pay a relatively high price for a well-run personal loans, typically second mortgage type business, mortgage type business. Western Trust charges 2.0 per cent per month, equivalent to 26.8 per cent per annum. Conexisting operation such as Western Trust. There are not many similar operations in existence and what few are left sequently the average customer is paying roughly twice what he are being snapped up by foreigners.

or she would have to pay for a bank overdraft. But this does not seem to deter them. Consequently it is not difficult to understand why the Royal Bank of Canada wants to break into this market. Com-pared with the fiercely competitive international market, the UK consumer finance business must look extremely lucrative to an outsider. The Royal Bank could have set up its own opera-Wolfson. The UK offshoot of the tion from scratch, but that takes

Credit Corporation bought the Slater Walker Finance Corporation in 1975 for £4.8m, and Associates First Capital Corpora-tion (part of the giant Gulf and Western group) bought the banking operation of Hawtin in late 1974.

Although all of these foreign-owned operations are still rela-One of the first to pounce was Citibank which took over Campbell Discount in tively small they are clearly HFC Trust, the UK subsidiary of Household Finance Corporaexpanding very quickly. Citi-bank Trust, the UK consumer finance arm of Citicorp, America's second largest bank, tion, the biggest consumer finance company in North America, took over the UK says that its new business is expanding by 50 per cent a operations of Niagara Finance two and a half years ago, and its rival, Beneficial Finance. year, and in certain sectors such as large house mortgages it has took over the Birmingham-based Security Trust from Sir Isaac lead. HFC Trust is more down-

market than Citibank Trust and is a relative newcomer to the UK market, having opened its first branch only in October 1974. However it now has 67 branches dotted around the country and plans to have close to 200 by the end of 1983. On present projections it sees its new business growing by a compound rate of 50 per cent per annum over the next four years. Although its average loan size is only £500 and its total footings £36m, it is not intent on remaining a small fish for long,

### Ambitious

Pre-tax

The story is much the same at the other U.S. finance companies that are fighting to establish themselves in market. Most of them have very ambitious expansion plans about the sort of profits they believe can be made in this market. Over the next few years Reneficial Finance could open another 60 branches and Avco more than 100. At the moment the eight main companies (see table) have a total of 280 branches across the country. Over the next five years this made a name for itself—already number will almost certainly Lloyds Bank is following its double if present expansion plans are to be believed.

New Issue February 1979

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# FINANCIALTIMES

Monday February 19 1979



# Iranian workers end strikes as Khomeini gains control

BY SIMON HENDERSON IN TEHRAN

emerged over the week-end that about 700,000 barrels a day at ment of Col. Nasser Mojalleli Ayatollah Ruhollah Khomeini, this time of year. There seems as chief of police, Col. Momtaz Avatollah Ruhollah Khomeini, Iran's religious and political leader, is gaining control of will return to anything like its events with the return to work at his request of the majority of Iran's workers after several months of strikes.

The political strikes, called by the Ayatollah, had been largely instrumental in expelling the Shah and subsequently toppling the government of Dr. Shapour Bakhtiar, his nominee.

The response to the call for a return to work was generally good. The country's oil workers responded in large numbers, although industry and commerce are still affected by the backlog of goods held up at the country's ports and frontiers by a customs officials' strike, due to end on Wednesday.

Shopfloor

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THE PROSPECT of special

at 645,000 b/d.

There were signs that some left-wing oil workers were not responding to Khomeini's call, and were still on strike, particularly at Abadan, Iran's main

Imperial Guard

With industrial production reduced to 25 per cent of nor-mal, the first indications of a badly needed economic revival come amid great political un-certainty. Dr. Mehdi Bazargan, the Khomeini-appointed Prime The 60,000 or so oil workers an Economics Minister. are not known. Israelis to le have been told by Ayatollah Khomeini to produce sufficient original nominations, Dr. Bazar spirit was given a further boost return home.

little chance that oil production as head of the para-military gendarmeries, and Major-General Shapour Azarbar as air will return to anything that an operation of about 6m General Shapour Azarbar as on barrels a day. On Saturday, the force chief of staff. The 12,000-barrels a day was estimated strong Imperial Guard, fiercely shap the Shap has been loyal to the Shah, has been

> Bank Markazi Iran, the Iran Central Bank, is being run by an eight-man revolutionary committee, headed by Mr. Ali Rastidi, leader of the strike committee. Businessmen report that the bank appears to want to meet its obligations but progress will be slow

The two main and potentially opposed guerrilla groups—the Left-wing Fedayeen and the Islamic Mujaheddin—have left their strongholds in Tehran University and their new bases

THE FIRST encouraging signs oil for domestic needs only, gan has announced the appoint- on Saturday with the arrival of Mr. Yassir Arafat, the PLO leader, who immediately went to see Ayatollah Khomeini.

A purge continues of the ranks of the armed forces with four generals shot last week and 34 formally retired in the last two days, many of them now under arrest.

### Evacuation

On Saturday and Sunday, about 460 Britons were evacu-ated by the RAF to the British base at Akpotiri in Cyprus. Under the protection of men armed by Ayafollah Khoneim, the first phase of a mass evacuation of the remaining Americans, estimated at 5,000, began on Saturday.

Israel radio reported that the

Iranian government had ordered Israelis to leave Iran and told

# Widest pipeline to bring North Sea gas 200 miles

terminal, near Peterhead.

newly - operational

union conferences to involve THE largest - diameter longthe shopfloor more closely in distance pipeline to be laid in discussions on pay and inflation Britain will carry natural gas yesterday by Mr. Len Murray, from near Peterhead, in northgeneral secretary of the TUC. east Scotland, to Bishop Auck-Following last week's agreeland, 200 miles to the south.

ment between the Government The British Gas Corporation and the unions which includes has placed a £45m order with the Tubes Division of British an inflation target of 5 per cent within three years, Mr. Murray said that the possibility of achieving pay settlements which might be consistent with that Steel Corporation. The pipeline, the first part of which will be commissioned in 1981, is designed to bring gas from the North Sea Brent Field target depended on the mood of

If the climate on the shopfloor was not conclusive to this, no amount of pay fixing machinery or advice from the TUC would be sufficient to ensure what might be considered reasonable settle-

Translating the need to keep pay settlements at a level consistent with economic targets was best done by ensuring that individual groups of workers saw the relevance of this to their own position, said Mr.

Television's Weekend World, Mr. Murray suggested the possibility of national and regional union conferences for the TUC to axplain its overall attitude to the country's economic pros-rects as well as test the water as to what would be acceptable

There was no denying the need for pay mechanisms and Mr. Murray mentioned pay comparability and relativities enshrined in the TUC-GovernGovernment agrees increases

largediameter pipe-making facilities

The order will rely upon the making facilities at British Steel's Teesside works. The corporation expects to produce high-quality steel at

manufacturing costs competitive

with the best international levels after the new 10,000-tonne-a-day blast furnace is brought into use later this year. The pipeline order is bright spot in a generally dull picture of British steel demand. Department of Industry figures show that in the fourth quarter of last year steel consumption fell sharply reflecting lower levels of activity in most of the main steel-consuming industries Total steel consumption las year is put at 15.5m product

tonnes, compared with 15.3m the previous year, and levels of about 17.5m annualy in the early 1970s.

# up to 36% for Civil Service

that dissatisfaction.

pay increases averaging 26-36 per cent for white-collar civil servants based on the findings of an independent comparability

Continued from Page 1

### Scottish opinion poll

BY IAN HARGREAVES, SHIPPING CORRESPONDENT

Clitheroe in the by-elections on . The Commons, March 1, the Government with adjourns next week to enable its supporters would need to MPs to campaign in the referenfind seven votes from minority dums, will spend today and Commons censure motion from

Robin Reeves writes: A concentrated effort to rally Welsh voters behind the Government's proposals for an Assembly in Cardiff starts this week. High spot of the campaign will be a speech by Mr. Callaghan in Swansea on Wednesday.

The Prime Minister is expected to reassure Labour votes.
that the Assembly will not it is more sensible to tell a weaken Welsh links with Westweaken We executive Assembly only, with ahead with a Bill or to commit legislative power remaining at it in the dying weeks of an

THE FOUR-YEAR struggle

to find a common EEC posi-

tion on the developing world's

hopes in liner shipping could

he resolved tomorrow following an initiative by the

A meeting of European

transport ministers will study

a four-point formula worked

out by the Commission follow-

ing a series of top-level meet-

ings in European capitals in

enable the EEC states en bloc to ratify the 1974 United

Nations Liner Shipping Code,

which is based on sharing

eargo on fixed shipping routes

in the proportions 40:40:20

between exporting, importing

and outsider or cross-trading

British officials, who have

led opposition to the code on

the grounds that it would

interfere with the normal

The formula is designed to

European Commission.

recent weeks.

. countries.

commercial allocation

market shares and weaken

the position of the large,

cross-trading British liner

by the all-party Procedure Committee last session.

Br. Bill Kendall. civil servants, and leaders of

Further meetings between civil service union leaders and Len Murray, TUC General Sec Service Department Ministers expected this week could make the terms of the offer clear enough to temper Association should be called

The rises estimated to be due from the findings of the Pay Research Unit, which has been re-activated for this year's settlement in April for the first time since the present series of pay controls began, have long been thought by Ministers to be an embarrassment to the Government, which is trying with health and local authority manual workers to keep public sector settlements at least in

touch with its original 5 per cent limit A threatened programme of. service industrial action, particularly by computer staff represented by the Society of Civil and Public Servants, if the Research Unit's findings were not met, and the seriousness of traditionally non-militant

give way. The change in the official position came at a meeting at the Civil Service Department on Friday between Lord Peart, Br. Bill Kendall, secretary-general of the staff side of the Whitley Council, which represents all 600,000 white collar

between union leaders and Mr. retary, who in the light of the concordat with the Government, urged that Friday's strike the Civil and Public Services

Lord Peart also said that the Government was prepared to service. Both union and CSD officials have thought privately for some time that staging would be the only way round the impasse of the Research Unit findings and any pay limit in force.

In meetings this week, the unions will try to clarify how much of the increases due from the Unit's reports will be available in April, and how much held over in the staging.
The Unit reports showed that rises of 23-26 per cent are due for clerical assistants and that

25-33 per cent for clerical officers, members of the CPSA. civil servants' intent appears to and 26-36 per cent for the have forced the Government to middle - ranking executive officers, members of the Society The increases, if paid in full would raise clerical assistants pay from .£44.12-£50.15 to £54-£63, clerical officers, from £49.79-£62.84 to £65-£79 and

> £87.72 to £86-£111. Findings aid industrial workers,

executive officers, from £59.64

# strong

with the U.S. yesterday in talks to pave the way for next Wednesday's hig effort by Washington for a break-through in the stalled Middle East peace talks at Camp David

President Anwar Sadat is reported to have told Mr. Harold Brown, the U.S. Defence Secretary that Egypt would make no further con-cessions to Israel in the negotiations.

fears in the Gulf after the

cess has been bogged down since the failure by President Carter to achieve a treaty between Israel and Egypt after last year's Camp David sum-

Ramel, former Foreign Minis-ter, resigned last September during the Camp David sum-mit talks because of the terms

that Egypt was accepting.

During his talks with Mr. Brown. Mr. Sadat urged that Egypt be given increased U.S. military and political support to bring her more into line with that supplied to Israel.

### Libyan threat

within the next few weeks to assess Egypt's military shopping list, which includes tanks, armoured personnelcarriers, naval vessels and anti-aircraft missiles.

Sadat expressed particular concern about the possible military threat posed by Libya, and emphasised his Sudan against an-external

clude the negotiations. Mr. Davan said the Iranian crisis had spurred the U.S.

time is working in its [an agreement's lfavour," he told an Israel radio interviewer.

### Weather UK TODAY

MAINLY cloudy and cold; London, S.E., E. Anglia, E. Midlands.

Cent. S. England, W. Midlands, Channel Isles, N.W. and Lakes Cloudy, rain, sleet or snow at

S.W. England, Wales Cloudy, some rain, fog patches, brighter later. Scotland

Cloudy, rain, sleet or snow at first. Max 2C to 3C (36F to

Orkney, Shetland Cloudy, some rain, sleet or snow. Max 2C to 3C (36F to

Outleok: Cold, mostly dry in East; less cold in West with

WORLDWIDE



# Egypt's warning

EGYPT TOOK a hard line

Any further concessions

must come from Israel, Mr. Sadat told Mr. Brown, who yesterday ended a 10-day Middle East tour to prepare the ground for talks and allay upheavals in Iran. The Middle East peace pro-

mit meeting.

The Egyptian delegation will be led by Mr. Mustapha Khalil, the Prime Minister, whom Mr. Sadat has appointed Foreign Minister, a post unfilled for the past five months.

A U.S. military delegation is expected to arrive in Cairo

According to officials Mr. determination to support the

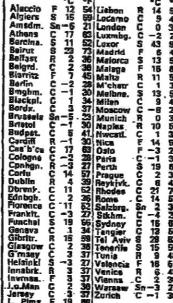
L. Daniel reports from Israeli Foreign Minister, who leaves today for the Genn David talks, does not think that they will end in agree-ment permitting signature of the proposed peace treaty. He expects progress

sees convening of the pro-posed Summit—Sadat, Carter, Begin—as essential to con-

seeking an Israeli-Egyptian peace treaty as soon as possible.
"The U.S. does not think

Cloudy, early sleet or snow.

first. Max. 2C (36F). E., Cent. N. and N.E. England. Borders, Edinburgh, Aberdeen Cloudy, mostly dry. Max. 1C



THE LEX COLUMN

# Dunlop's strategy for tyres

There is at present a handful of blue chip companies about which the City has major reservations and one of the most prominent of them is Dunlop. On the basis of 1977's dividend payment, its shares at 64p yield comfortably over 12 per cent, or more than twice the market average. Its tyre business in the UK and the rest of Europe is a gaping wound out of which flowed substantial losses in 1978, and the outcome of last month's decision to close down over a fifth of its tyre making capacity in the UK is still in question. Recent reports that the group has been unsuccessful in an attempt to secure substan-tial state aid to help reshape its troubled tyre side only add

### Shared problems

to the uncertainty.

Dunlop is not alone with these problems. Last month Firestone started discussing major cut-backs in its European workforce, Goodyear's UK subsidiary has indicated losses of as much as £18m in 1978, and a host of other tyre makers around the world face financial difficulties of one kind or another. More-over, most of the rest of Dun-lop's business is sound. It earns high returns (like BTR) on some of its industrial products, the consumer side has been performing well and the sports business, although there are some patchy spots, has probably also been doing rather better lately. Even in tyres, Dunlop can have few complaints about the results outside Europe.

But with over £500m of tyre sales in Europe, its group results for 1978, due to be published.

lished in April, can only be grim. The City is expecting that Dunlop will make profits of between £40m and £45m pre-tax down from £57m in 1977 and £74m in 1976) on sales of very roughly £11bn. This is before taking account of substantial write-offs to cover rationalisation expenses, which will be taken below the line.

Although capital spending five years, was held back last year. this poor performance is bound to have had a marketd impact on borrowings Year-end debt could be nearly for a big chunk of the increase. This will further exaggerate

the international imbalances structure. Outside Europe, borrowings are relatively low, but debt levels in the UK are high, Ideally, Dunlop might like to

DUNLOP seas. Apart from anything else,

shift some of its gearing overit is obviously inefficient to have high finance costs in the UK where substantial tax allowances are available to set off against future profits. But there are strict limitations on how far this can be achieved, not least minority shareholders in most of the overseas companies.

Despite a lop sided balance sheet, however, Dunlop still has to be regarded as a single international entity, with worldwide cover for its debt and dividends. It must obviously be reluctant to sell off any of its cash generating assets overseas, but it presumably could reshape itself in this way if it seemed necessary. Meanwhile it is wrong to think in terms of ring fences: there must, for instance, be a useful flow of royalties and technical fees to help restore the UK balance.

So despite the political pressures on a group which is in the middle of a major redundancy programme, there is a better than even chance that Duslop will maintain its dividend for 1978. The cost of doing so—around £10m gross—doe not loom all that large for a group which has put well over £300m into fixed assets and working capital over the last

### Dividend decision

On the other hand, the cost in terms of market status of a a fifth higher than 1977's net dividend cut—coming so soon after the rights issue and in 1977-would be such that any future attempt to raise further equity could be jeopardised. That is something which Dunlop must be very anxious to avoid. How serious are the financial

Despite

balance sheet itself seput present no particular terrors with total stockholders' fands (including a very big slee of minority interests) somewhere in the region of the Assum shown at the end of 1977. Although borrowings are up. Dunlop has for some time been Dunlop has for some time been making a big effort to improve its debt profile, and the overdraft element may not have risen that much. In addition it has repaid DM 150m of fureign currency toans—which about have belped to increase the average life of its debt—and most of its remaining overseas horrowings appear to be reasonably well matched with assets.

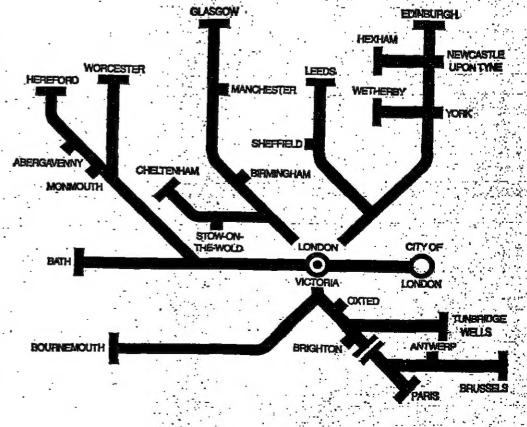
The financial gearing in the profit and loss account is, of course very much more formid-able, with the finance charge probably covered less than three times. What all this implies is that although Dunlop has that although Dunlop has obviously got a profits problem, it has not got a serious cash problem. The depreciation provision alone could coughly match pre-tax profits this year. If all goes according to plan—a big proviso—the cash position should not be a major worry in the fature sitter.

### Borrowing need

Borrowings are likely to rise further during the next couple of years as Dunley makes the big effort to get its European operations in balance. But the pace of the increase should not be as great as last year, and the required facilities for the period are likely already to be in place. Thereafter the overseas side should continue to be more or less self-disaucing and provided that the wounds of the European tyre operation can be cauterised, the external financial needs of the group as a whole should not be unduly

Everything depends on the success of the cutbacks in tyre production in Europe. The group has already gone a fair way towards reshaping its Continental operations. At home its strategy rests on must higher productivity, and that in turn relies on co-operation with and from the unions. If it succeeds, there must be at least a chance of a return to profits in what is a mature industry. which will have shut down great chunks of high cost capacity. If it fails, the medium bleak indeed. Decisions taken in the next few months seem likely

*i*2:>



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red at the Post Office. Printed by St. Clement's Press for and published Financial Times Ltd., Bracken House, Camon Street, London, ECAP 48Y.

C The Financial Times Ltd., 1979.



### BY PHILIP BASSETT, LABOUR STAFF THE GOVERNMENT has agreed members of the civil service's the civil service unions. two largest unions.

study.

Union dissatisfaction with the imprecise nature of the offer studies as well as the tripartite, put by Lord Peart, the Lord national assessment meetings Privy Seal, though, is too strong to avert Friday's oneday national strike by 285,000

tomorrow discussing recommended reforms in its own procedures. No firm conclusions are demands from Mrs. Thatcher and other Conservative leaders than 70 recommendations made

Mr. Michael Foot, Leader of the Commons, will argue when he winds up the debate that

Britain wary over EEC's shipping initiative

fleet, are adopting a cautious attitude towards the new pack-They say that the outcome depends upon attitudes adopted at tomorrow's meeting, but are not ruling out the possibility of a breakthrough.

The latest Commission proposal is designed to satisfy Britain's desire to see the effects of the code minimised in trade between developed countries, while attempting to ensure that Belgium will receive encouragement to push up its share of its own liner trades from 10 per cent closer to the 40 per cent specified

The four points in the pro-• In trades between de-

veloped countries (members of the Organisation for Economic Co-operation and Development) the cargo-sharing arrangements will not apply. but cross-traders from developing countries will be able to cite the code in seeking a 20 per cent share even OIn trades between an EEC

state and developing countries, the member state's 40 per cent share would be open to competition from other EEC lines on a commercial basis. Other non-EEC OECD lines would be able to join in this redistribution if they could offer reciprocal oppor-tunities in trades where they enjoyed the code's protection. · Every effort will be made to persuade other OECD countries to follow the EEC

• Member states should agree

Belgium, does not have a fair " share of its own liner the lines affected should bargain and seek unanimous agreement on shares. The council should also adopt a statement encouraging "fairness" in these negotiations. The exireme positions of Belgium and the UK are obviously only partially met

that where a country, such as

feeling remains that the code is in the thin edge of the protectionist wedge. If agreement is reached, it will be on the basis that a common position is desirable in advance of the next meeting of the UN Conference on Trade and Development in Manilla in May and because agreement on the code is seen as an essential first plank

in the formula and British in developing an EEC mari-